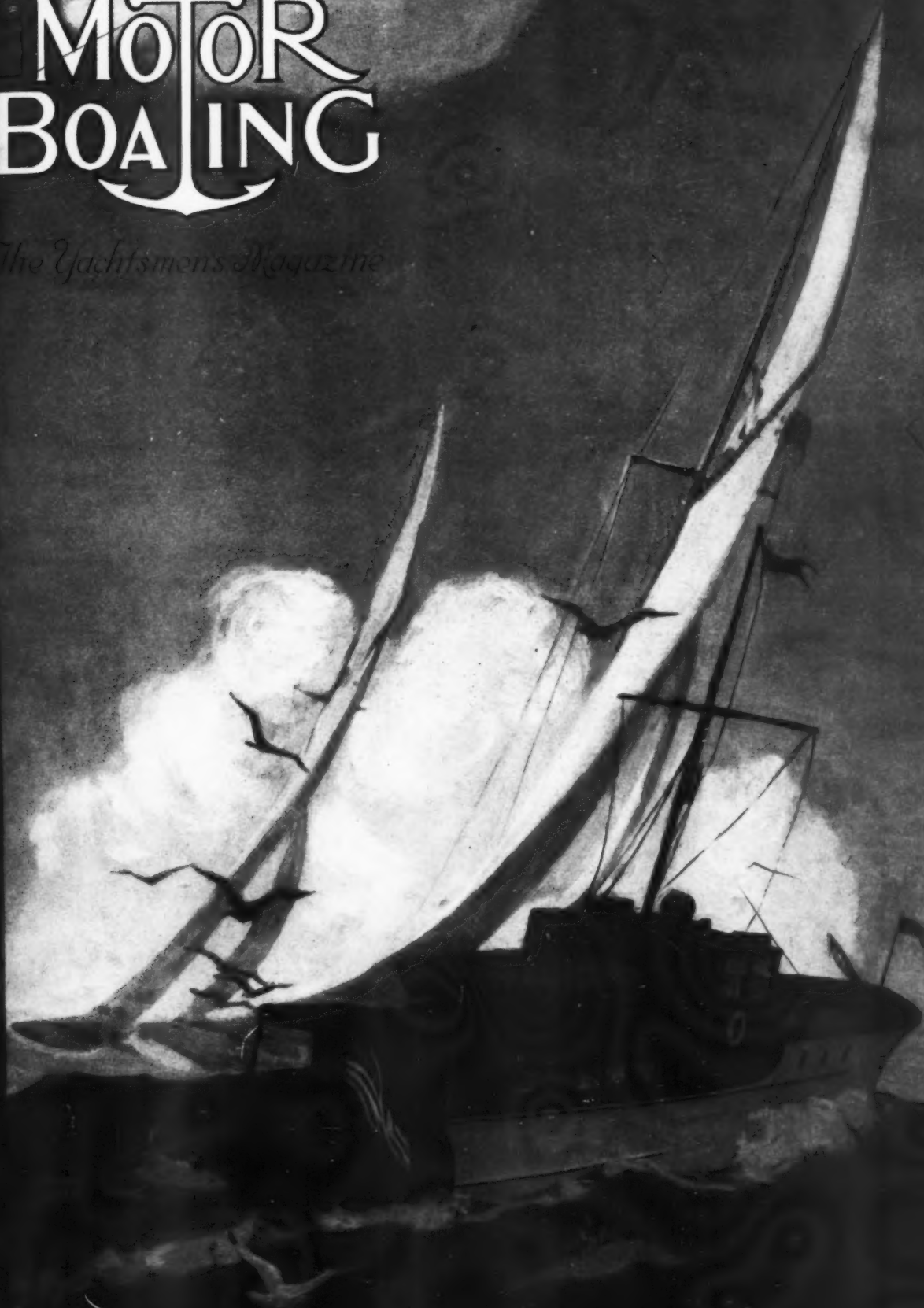


January 1928

35 Cents

MOTOR BOATING

The Yachtsmen's Magazine



Radical New ELCO *Improvements* for 1928

See the NEW MODELS on display
at the Motor Boat Show

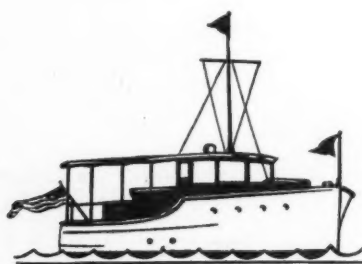
THE motor cruiser of today is a faster, safer, roomier boat than ever before. Advances are constantly being made in niceties of design and construction. The boats displayed at this year's New York Motor Boat Show, Grand Central Palace, January 20-28, represent the newest achievements in the field of the motor cruiser.

Elco boats have more than kept pace with progress. For the new year, every Elco model incorporates the latest improvements, the most

modern thought on design. Faster, safer, more commodious and beautiful than ever, yet all the fundamental features that made Elco cruisers a standard of excellence have been retained in the new models.

Visit the Motor Boat Show—see the Elco exhibit. There never has been a better time to give yourself an Elco cruiser, for the 1928 models offer a truly astonishing advancement in convenience and seaworthiness. If you cannot visit the Show, write for Catalog M.G.

MOTOR
BOAT
SHOW



Grand Central
Palace
New York
January 20-28



The Elco Works . . . PORT ELCO (Permanent Exhibit)
247 Park Avenue, at 46th Street, New York City



*The
Clermont*

Pioneers- Of a New Era in Water Motoring

IT WAS Johnson that first gave to a water-loving public, dependable outboard performance.

Before Johnson, outboards were largely single-cylinder. Cumbersome 85-pound motors — weighing over 40 pounds per horsepower—they were unwieldy. Without a carburetor—without adequate ignition—starting was uncertain. They were underpowered. They were slow. The outboard before Johnson was a makeshift—difficult to maneuver and operate—undependable for efficient water transportation.

The Johnson Light Twin of 1922, weighing 37 pounds, was a tremendous advance in outboard engineering. With the improvements of Full-Pivot steering, a float-feed carburetor, and automatic tilting, it pioneered a new era in water motoring.

Being years ahead, the Light Twin created a preference for Johnson which has steadily increased.

Constantly alert to the water motorist's desires and

needs Johnson has continued to pioneer and develop. The first outboard to speed better than 32 m. p. h. is a Johnson. The first class B outboard to attain better than 26 m. p. h. is a Johnson.

The influence of Johnson engineering is noted in the embodiment of many of its features in other outboard motors—a tribute to Johnson's engineering genius. 1928 brings even greater Johnson development.

An Entirely New Model—more powerful—even faster than previous Johnsons.

Maximum Power—the limit of power in the Big Twin and Standard Twin classes.

Quieter Operation—an improved muffler with adjustable silencer.

Improved Magneto—hotter spark, easier starting. Impervious to water.

Lynite Pistons—quicker pickup—smoother power.

[Watch ~ FOR OUR FEBRUARY ANNOUNCEMENT]
IN THIS MAGAZINE ~ ~ ~ ~ ~

JOHNSON MOTOR COMPANY, 3051 Pershing Road, Waukegan, Illinois

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THE WORLD'S LARGEST MANUFACTURER OF OUTBOARD MOTORS

Johnson

Outboard Motors

MoToR BoatinG, January, 1928. Volume XLI. No. 1. Published Monthly at 119 West 40th Street, N. Y., U. S. A., by International Magazine Co., Inc. Yearly subscription price: United States, \$3.00; Canada, \$3.00; Foreign, \$4.00. Entered as second-class matter April 15, 1925, at the Post Office at New York, under the act of March 3, 1879. (Printed in U. S. A.)

VXA
Motor

A Magneto for Every Purpose

All models made to the same High Standards



There is an Eisemann Magneto to fill every need . . . to meet every requirement of the marine trade.

A single cylinder—for dories and the like.

Multi-cylinder models, in two distinct series—one for heavy duty service, the other adaptable for use where the demands are less exacting.

And a flywheel type magneto—for out-board motors.

All models are alike in one respect . . . conformity to the same quality standards. There are no "cheap" models, with quality sacrificed to price, in the Eisemann line.

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EISEMANN

ELECTRICAL EQUIPMENT

**RECORDS
OF
1927**

Winner
President's Cup
Washington Regatta
Miss Syndicate
Driven by Mrs. Delphine
Dodge Cromwell
52.17 M.P.H.
Ran on Duplex

Winner
Secretary of
Navy's Cup
Miss Okeechobee
Driven by Commodore
F. G. Ericson
52.31 M.P.H.
Ran on Duplex

Winner
151 Class
Boston
Miss Spitfire V
James H. Rand, Jr.
Ran on Duplex

Winner
Class B Outboards
Albany, July 4th
Cute-Craft
A. T. Buffington
Johnson Standard Twin
25.25 M.P.H.
Ran on Duplex

Fastest
Mile Ever Made on
Salt Water
Biscayne Bay
Miss America V
Gar Wood
68.05 M.P.H.
Ran on Duplex

Winner
Detroit Sweepstakes
Miss Syndicate
Owned and Driven
by Horace E. Dodge
53.92 M.P.H.
Ran on Duplex

Winner
Class B Outboards
Newport, August 20th
Cutey Cute-Craft
Charles Cooper
Johnson Standard Twin
25.06 M.P.H.
Ran on Duplex

Winner
Class B Outboards
Savannah Regatta
General Oglethorpe Trophy
Cute-Craft
Johnson Standard Twin
24.8 M.P.H.
Ran on Duplex

Again
**MOTOR
BOATING
HISTORY**
Was Made with

DUPLEX

MARINE ENGINE OIL

THE great lesson of 1927, for pleasure and racing craft alike, was the lesson of correct lubrication. Winner after winner, at regatta after regatta, in crossing the finish line gave prompt credit to Duplex Marine Engine Oil.

The leading owners of racing boats, like the foremost engine makers and boat builders, have learned that marine conditions force the use of a marine oil—and they endorse Duplex Marine Engine Oil because they know it is the finest lubricant made specifically for marine service.

With such clear-cut evidence before you, why not resolve to run only on Duplex in 1928? It's the best resolution you can make, if you would realize the utmost enjoyment from your boat, prolong the life of your engine, and keep free from unnecessary engine trouble and needless repair expense.

Let your first letter in the new year be addressed to the Duplex Marine Department. Tell us the name, model, size and number of your engine and your type of boat—then we can place lubrication information in your hands that will save you many dollars this year.

ENTERPRISE OIL COMPANY, Inc.

162 Chandler Street, Buffalo, N. Y.

Metropolitan Distributors, Marine Oil Co., 29 West 34th Street, New York City



Walter C. Ware, Vice-President
of the Paragon Gear Works

How Did We Come to Pick Walter C. Ware?

Well, Here's the Story ~

"EVERY time some one hears why we picked Walter Ware—an engine builder—for this reverse gear job, he comes back with 'That's a story!'"

"So we've decided to tell it."

"We've been building Paragon Reverse Gears for twenty-one years. Every time a reverse gear imperfection or problem stuck its head up in the shop or in some one's boat, we took a shot at it. Slowly through all these years we built up an engineering staff and reverse gear knowledge that made it possible for us to produce our new type reverse gear—the 90 Line."

"So we found in 1927 that we had a product that was the cream of twenty-one years' experience at a specialist's job—and any maker of a product reading this knows what value that is to any single manufacturer."

"Well, the new series of 90 Line Gears coming off the blue prints and going into the shop started us thinking along other lines."

"We had managed to render the best service we knew of in the way of a reverse gear—90% speed in reverse—absolute direct drive on forward speed, etc."

"Now the question which came up in our minds was 'How can we render a service along with the new reverse gear that is as new and as helpful to manufacturers and boatmen as the product?'"

"We forgot about reverse gears for a while and thought more about those who use them, you boatmen and repairmen who install them, and you manufacturers who include them in your blue prints."

"Right there we got a hunch!"

"You makers of motors have blue print rooms. Like ours, they are battlegrounds for the adjustment of problems and creative work. A bunch arguing over a blue print about improvements is a familiar sight in the shops of builders"

"So the thought came to our minds: 'Why can't we offer a service that will take over a lot of those blue print problems? Why can't we help you engine and boat builders on the questions of design which have to do with the rear end construction and reverse gears?'"

"That meant that we needed a man who would go around and help builders and gear design—a man who would point out savings in construction that would never otherwise occur to them."

"We knew the gear end of it. Who best knew the engine end of it? Working together we could offer manufacturers an entirely new type of help in the marine business."

"These requirements pointed out that we needed an engine and boat builder and one of the best in the country. Those of you who know Walter Ware, know we certainly filled our order—large as it was."

"Now Mr. Ware is here in Taunton. He's ready to give you help when you need it on rear end design. He can coordinate the motor end with the reverse gear end and both of these units with the operation of the boat as a whole, and help you produce a complete job that will drive boats with less power waste on the entire line, and produce a power plant that will give the best possible performance."

"When you can use the kind of service he gladly gives, call on him."

W. H. Ware
President

PARAGON GEAR WORKS

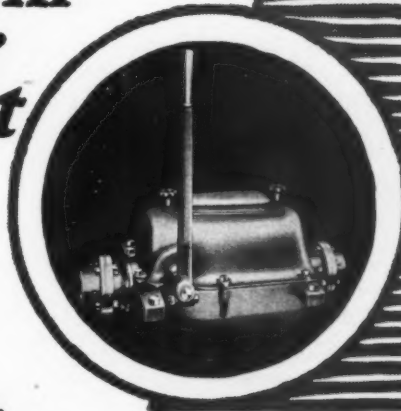
PARAGON

PARAGON GEAR WORKS
200 CUSHMAN STREET, TAUNTON, MASS.

**REVERSE
GEARS**

This is the "90" Line Paragon Reverse Gear, enclosed, which will be on exhibition at our Booth at the Motor Boat Show —

The Paragon Gear Works is exhibiting at its usual space, Booth Nos. 21-22, Third Floor, Motor Boat Show, Grand Central Palace, New York City—January 20 to 28, 1928.



Fearless at Sea



"Off to Mother Carey, where she feeds her chicks at sea."

STORMY PETRELS, tiniest of all web-footed birds, were so called by sailor men because Petrel meant "little Peter".

No matter how rough the sea or boisterous the gale, there the little bird was to be seen, far out, swift and secure, lightly tripping up and down the waves.

Like their namesake, they seemed actually to *walk* upon the water and because they flocked about a ship in a companionable way, the old Salts nicknamed them "Mother Carey's Chickens".

Come around to the New York Motor Boat Show and see the Sea Sleds—a whole flock of them—from luxurious Model 28 with its 200 H.P. down to the last and latest design, swagger little Model 16. They rival Mother Carey's Chickens in ability and speed.

The new outboards are as smart as paint. They are practically non-capsizable and non-sinkable. They show a speed which puts them right on the edge of the racing class, and a sturdy endurance and cargo-carrying capacity which puts them in a class all by themselves.

Model 13 is proving to be the ablest thing afloat. Solid mahogany with double-planked bottom, drive her at 21 miles an hour when it's rough and she will give you an exhilarating sensation of speed that will make you think you are in the air almost as much as in the water. But you can't pound her bottom out, and when she lands, instead of that hard crack which sounds as though planks and frames had parted company forever, she comes down like velvet on a cushion of air and comes down dry as a chip. If the sea is lively enough, you get all the sensation of a bucking broncho without the spine-jarring jolt.



Model 13—It's those easy, powerful lines which keep her so safe and dry

There is a new member of the Sea Sled family. Model 16 for outboards will make you sit up and take notice—she's worth looking at.

Both Model 13 and 16 are as smooth and fast in light weather as anything you ever handled short of a racing shell, but when the sea kicks up they *play* with it. You don't have to worry about yourself or them. They are as safe at sea as Mother Carey's Chickens.

To Dealers:

Twice since Labor Day, an odd thing has come up—one man bought a Model 13 and immediately on delivery ordered a Model 23. Another got himself a Model 23, and then turned right around and bought a Model 13.

You'll see the reason for this at the New York Motor Boat Show, January 20th.

Meanwhile if you've got floor space for a Model 13 and bank space for larger profits, write for terms.

List Price \$218.00 F. O. B.

Exclusive features

Dependable as a fine car
Will not roll
Will not stick her nose under
Planes on her own spray
Does not drag aft
Navigates shallow water
Safe and dry at speed in rough
water



TRADE-MARK REG. SEA SLED U.S. PAT. OFFICE
THE SEA SLED CORPORATION
 Sole Licensee under Hickman U. S. Patents
 226-228 Fourth Ave. at 19th St., New York
 All prices F.O.B. Yards at W. Mystic and Groton, Conn.

Exclusive uses

Commuting marine motor
Class racer for youngsters
Fast marine runabout for women
Day Cruiser for family
Tender for racing yachts
Harbor tender for sea-going
yachts

Model 28—200 H.P. Sedan Top

SEA SLED
 SPEED — WITH COMFORT AND — SAFETY

Model 23—75 H.P. Sedan Top



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JANUARY, 1928

Vol. XLI, No. 1

COMING EVENTS

January 20, 28, 1928—Motor Boat Show, Grand Central Palace, N. Y.
January 24, 1928—Annual Meeting Regatta Circuit Rider's Club
January 26, 1928—Annual Meeting National Association of Engine & Boat Manufacturers
January 28, 1928—Annual Meeting United States Power Squadrons, Inc., N. Y.
February 6, 10, 1928—Motor Boat Show, Boston, Mass.
February 20, 21, 22, 1928—Palm Beach Yacht Club Regatta
March 16, 17, 1928—Miami Beach, Florida
March 19, 20, 21, 1928—Motor Boat Show, Miami Beach, Florida
March 24, 25, 1928—Havana, Cuba, Regatta
June 24, 1928—Bear Mountain Race, Colonial Yacht Club
July, 1928—Gold Cup Regatta
July 14, 1928—Block Island Race, New York Athletic Club
July, 1928—Albany Yacht Club
July, 1928—Buffalo Launch Club
August, 1928—Miles River Yacht Club, Easton, Md.
August, 1928—Massachusetts Gold Cup Association, Boston, Mass.
September 1, 2, 3, 1928—Regatta at Detroit, Mich.
September 14, 15, 1928—Corinthian Yacht Club, Washington, D. C.
September 16, 1928—Ocean Race, Sheepshead Bay Yacht Club.

Every Wednesday 7.30 P. M. (E.S.T.) Motor Boating Talk
— Station WABC 970 k.c., 309 meters



The first yachtsmen to arrive at Miami Beach for the winter, Howard W. Lyon of New York, who handles Hacker boats in the east, and D. S. Tuttle, prominent in motor boating circles at the Thousand Islands

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Edited by CHARLES F. CHAPMAN

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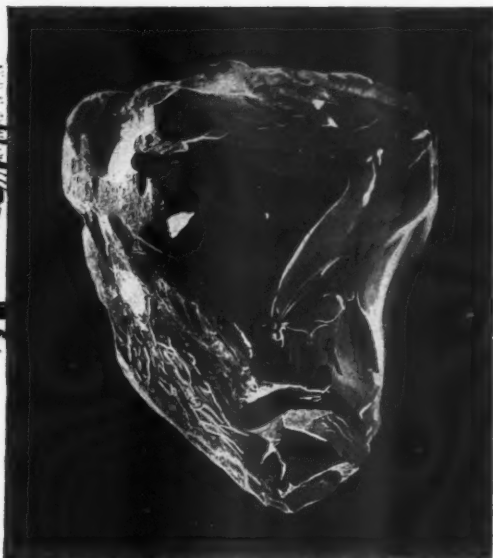
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Fossilized Kauri Gum, from the forests of the North Island of New Zealand,—the basis of Edward Smith famous Marine Products.

The Miracle of Newness in AGE-OLD FOSSIL GUMS

HARD fossil gums—oozing, coagulating, life-blood of tropical Kauri pines—aged, solidified and fossilized in the earth for periods as long as the history of man!

Only these remarkable fossilized formations, properly blended with other gums and suitable oils, can produce the qualities in marine varnishes for which the house of Edward Smith has been famous over the past hundred years.

A little more costly, it is true, but the results

justify the means, for Edward Smith Varnishes are recognized for their easy-flowing qualities, for their sparkling finish and for their ability to withstand every disintegrating influence of the elements.

Four generations of experienced seamen, ship builders and owners have tested the merits of Edward Smith Marine Products. The present generation continues to use them wherever fine surfaces at ultimate low cost are the prime considerations.

See Our Exhibit at the New York Motor Boat Show

Four leading products in the Edward Smith line of Marine Paints and Varnishes, made with hard fossil gums, finest oils and purest pigments.

THERE IS A SMITH PAINT OR VARNISH FOR EVERY MARINE PURPOSE

EDWARD SMITH & COMPANY

LONG ISLAND CITY, N. Y.

Makers of Marine Paints and Varnishes for 100 Years

Advertising Index will be found on page 178

Sanctioned Races—

Shall They Mean Anything?

THE racing man must be protected. The public must not be fooled.

At a recent annual meeting of the American Power Boat Association, with over 100 clubs represented, the delegates present voted unanimously that in the future no American Power Boat Association sanction should be granted for races where another sanction was issued by any club or organization which is not a member of the American Power Boat Association.

Several persons have written about this stating that such a rule might lead to confusion in future races and several misleading articles have appeared in the press. Therefore, a statement as to the true conditions and facts should be timely.

In the first place, why was this action thought desirable? Simply because the American Power Boat Association is the only organization in this country which has provisions and rules for granting sanctions and for sanctioned races. No other racing association in its 1927 Rule Book uses the word "sanction" or refers to "sanctioned races." There are absolutely no provisions in the rules of this association for sanctioned races. The granting of sanctions by any officials or individual members of this association can not be taken as having any official significance. Therefore, it must be assumed that there is one and only one sanctioning body in this country and that is the American Power Boat Association.

Secondly: how will the new rule affect conditions in 1928 as compared with those of 1927? There should be absolutely no change, due to the fact that the so called sanctions granted by associations other than the A. P. B. A. for 1927 events were in name only, that there were no rules or regulations for same and that according to their own rules no sanction could be granted. In other words the new American Power Boat Association rules prohibiting "double sanctions" simply removes a fictitious condition which misled the racing man and fooled the public.

The racing men have nothing to fear that their pet races or classes will be spoiled or abandoned. The A. P. B. A. will continue to function in 1928 as it has for the past 25 years. None of the classes or races which have been held in regattas held under American Power Boat Association sanction in the past need be omitted or changed in the future. Outside sanctions having meant nothing in the past, their omission in the future will mean nothing that the honest racing man need fear. The 151s can race as in the past, turn to starboard, etc., etc.

The American Power Boat Association is not interested in promoting events for the sale of boats, engines or real estate or the booming of this or that Chamber of Commerce. It is interested in contests of speed and skill, in developing hulls and power plants, in developing the sport of racing and yachting generally as well as many other branches of boating which are not directly related to racing. It is not interested in fooling the public but is interested in protecting the rights and interests of the racing man.

The A. P. B. A. desires to work in harmony with every other yachting organization. It believes in standardization of racing rules for all parts of the country as far as this is possible. But when other organizations have no rules whatsoever, it can not give its approval to events and records made under heterogeneous conditions and under no one's supervision.

The American Power Boat Association is an association of Clubs—it is not a racing body. The delegates of the Clubs to the A. P. B. A. annual meeting make the racing rules but the local clubs conduct the contests. The American Power Boat Association believes that the clubs themselves are supreme and the parent body does not interfere with the functions of its local clubs. They may ask for rulings or opinions or an interpretation of the racing rules. An appeal of a protest in a sanctioned race may be carried to the A. P. B. A. Racing Commission but the parent body goes no further. (Continued on page 72)

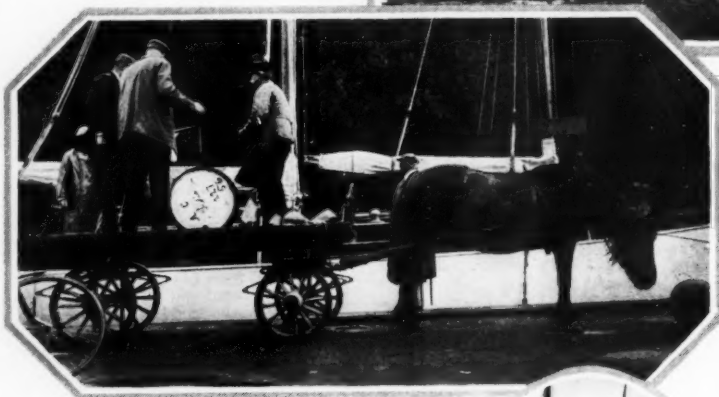
Lucette Threads the

Part VI

By Alfred F. Loomis

Author of

"The Cruiser of the Hippocampus," etc.



The business of taking on fotogen (kerosene) is usually a complicated one in Sweden

Stockholm is upon islands, sail and power ply constantly between them

a long series of locks, look as if it will crash through the gates and be a mass of twisted metal, to the boat. There goes the bell to the engine, and the propeller, turning leisurely reverse, infallibly stops her a few feet from the gates.

No. For the cruising bloke there is joy in being a passenger. To taste the full flavor of travel in foreign lands must be independent of travel agents, ticket takers, customs officers, and kindred nuisances. One must get into trouble if he's less than competent. He needs only two masters—the draft of the vessel and the strength of the crew.

We of the schooner *Lucette* sailed the Gotha Canal in this fashion and enjoyed it. Having passed a quiet night at anchor in Bromseö—our third night since leaving Gothenburg—we were under way at 7:30 the next morning for the northern shore of Lake Vänern at the recommencement of the canal. The day was of the same texture as the evening before, overcast and gloomy, and the barometer continued to hang around 28. Thrusting our sheltered bay into the lake we rolled a bit in the chop, swept across it, and settled down to find a channel between the islands which would take us to a place called Sjötorp at the mouth of the canal.

Though the channel looked messy on the chart we approached it with confidence, for it was bordered on one side by an island called Svartskär. Now Sv



While we were under way on Vanern, Anthony and Jim filled our fresh water tanks from the lake

EACH year, according to the pamphlets, some 17,000 tourists journey in comfortable steamers along the Gotha Canal between Gothenburg and Stockholm. And for those who are content to sit in a deck chair and watch the panorama unfold it must be a delightful trip. It could not be duplicated in America unless by some navigational legerdemain one were able to sail the length of Casco Bay, be whisked thence to the Champlain Canal and Lake Champlain, voyage among the Thousand Islands of the St. Lawrence River, and find oneself disembarking in a thriving seaport city all in the space of two and a half days.

But to those who are used to cruising on their own hook the steamer route across Sweden would be (excuse me for saying so) so much blah. All islands look alike unless they can be identified on the chart. No matter how complicated the navigation appears to the ignorant there is always the disappointing reflection that the captain has been over the route a thousand times and can keep out of trouble with his eyes shut. Does the ship, entering the upper chamber of

STOCKHOLM Skerries



Completing Her Passage Across Sweden, the Little Schooner Finds Herself Among Rocks, Shoals, and Areas of Abnormal Variation—She Completes the Outward Leg of Her Voyage

The Major successfully repels a swarm of flies which tried to take us by storm



may sound like nothing at all to the uninitiated, but we hadn't been in Sweden a week without learning a thing or two. One of these things was that *svart* means black and the other that *skär* means rock. By previous experience we also knew that when the Swedes call an island Black Rock it is the rockiest and blackest rock for miles around.

So, when we picked up the blackest and rockiest rock we recognized it, rounded it, and laid a compass course for Sjötorp, confident that our morning's troubles were over. As we had gained a weather shore we even had breakfast, and left Anthony at the wheel with instructions to call us when he saw the city that we were steering for.

Half an hour elapsed and there as no hail from Anthony. I went on deck and began to look for Sjötorp, and presently the whole crew of us were engaged in this thrilling pursuit. The wind was now astern and we swept along our course, identifying one buoy after another and coming closer and closer to the verdant shore of the lake. But no Sjötorp did we see.

I did all the things that a navigator does when he isn't sure of his position. Checked the buoys back and forth half a dozen times, imagined myself not in *this* bay but in *that* one, distrusted the compass, mistrusted the helmsman, lit one cigarette a dozen times, and wondered if at last I was losing my mind.

The worst of it was that we had a detail plan of Sjötorp drawn to a scale of one in ten thousand. The rest of the chart was on a rather small scale—one to eighty thousand—and if we had had to use that to identify Sjötorp we might have expected to miss it. But when a harbor is pulled up to one in ten thousand, and two breakwaters and an island and five buoys are clearly indicated on the plan—then you must be crazy if you can't find it.

Finally we lowered sail and drifted in to the land, our motor running to push us off in case we ran aground. By this time we had recognized one breakwater and knew that we must leave it on our port hand. The Major was at the reverse lever awaiting instructions and feeling sure that at last I was going to wreck him.

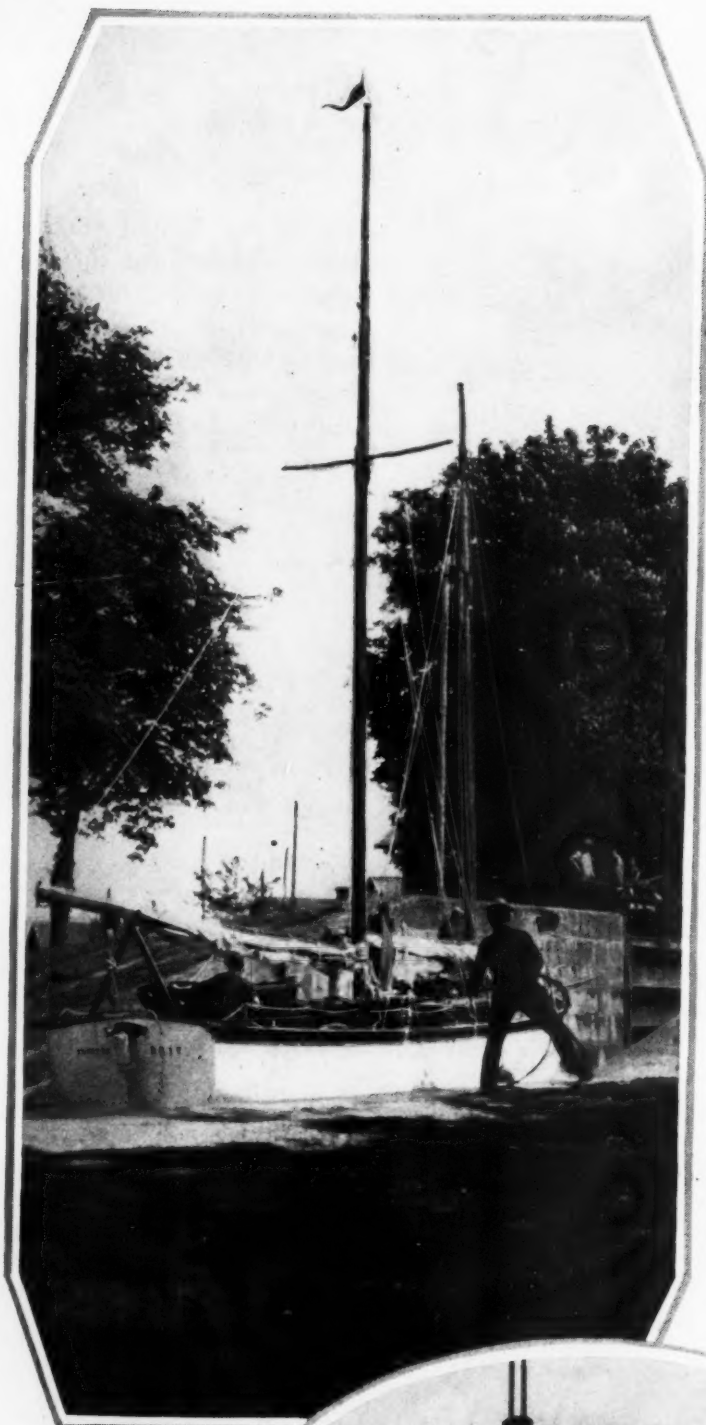
Anthony, whose eyes are superhuman, was peering intently around, positive that I was mistaken about the existence of the other breakwater and five buoys. The clear water of the lake changed to a muddy yellow and we were all in a state of nerves.

And then three match sticks and two clumps of fuzz which we had hitherto regarded as too small for earnest attention were touched by a magician's wand. The matchsticks became starboard hand buoys and the clumps of fuzz, about eight inches high, became port hand buoys. The jetty showed itself sullenly above the surface of the water, and we passed through a channel forty feet wide into the harbor of Sjötorp.

A Lilliputian harbor if ever there was one. Though we entered at dead low speed we had to go hard astern to keep from plunging through the lock chamber as we passed the last of the buoys.

And now we embark on a new experience in ditch crawling. The eastern half of the Gotha Canal, from Lake Vänern to the Baltic, is really old and totally primitive. The locks are small and numerous, with lifts ranging from a few inches to a few feet. The gates are wooden and manually controlled. As there is only one tender for each lock it devolves on the crew of the passing vessel to operate one gate of each pair.

Having been forewarned of this quaint custom we hopped ashore in sufficient number to handle lines, close the right-hand after gate and open the inlet valves in the forward gate—and so passed through without delay. Both at Sjötorp and at all the forty-odd locks which we negotiated before our arrival at the Baltic we were exceedingly fortunate in finding the chambers open and ready for east-bound traffic. This good fortune



Lucette, curiously foreshortened by the lens, enters a lock chamber, P. L. at the wheel and Jim handling liners

Loomis and Jim initiate themselves to the mysteries of the lock-tender's art



meant that the previous boat through had been bound west. Had our predecessor been east-bound, like ourselves, we should have had to wait from five to ten minutes at each lock until the chamber was made ready for us.

Above Sjötorp we paid our toll and were a little disappointed to learn that it came to four times as much as for the western half of the canal. This, despite the fact that we were expected to do half the work. Yet it all came to less than \$10 and seemed cheap enough.

For hour after hour and lock after lock we passed through the canal, climbing up and up and becoming wearily conscious that what goes up must come down. But we certainly became accomplished in the matter of ditch crawling. We learned how to joggle the gates so that they closed snugly behind us and how to lift the inlet valves with the least expenditure of effort. We got so that we entered a chamber at good speed and snubbed with a stern line without using the reverse, and we discovered exactly where to lie in a chamber so that the rising water would disturb us least.

Becoming adept we even learned to like the work, and the only one of us who was discontented was P. L. She, full of energy, and anxious to do a man's part, tried time and again to handle the lines or swing the gates. But whenever she lifted a hand the Major or Anthony or Jim jumped to her side to save her the trouble. Unused to the American idea that a woman engaged in sport takes her turn with the men, their inborn chivalry wouldn't let her exert herself.

P. L. finally gave it up as a bad job and for the remainder of the day made herself ornamental but useless. She contented herself with admiring the scenery, and the lock tender's children who frequently trooped out to work the gates *in loco parentis*, and the sleek horses and cattle in the meadows bordering the canal.

Paul, who has been everywhere and seen everything, told us that the part of Sweden cut by the canal is an exact copy of the state of Wisconsin, and he was able to tell us why. It appears that the Swedes who made the Badger state what it is today liked their work so well that some of them left America and founded Sweden, thus bringing their style of architecture and their methods of farming to the Old World. This explanation of Paul's may not be strictly correct, but it sounds most plausible. Even he, however, was unable to explain why the Swedish horses are as fat

as butter and, for all we could see to the contrary, are never required to do a lick of work.

Although starting in unpromisingly the weather fared before noon, and at one place after we had passed through a lock and were standing by for lunch Paul and I screwed up our courage to the point of swimming in the yellow water of the canal.



But by mid-afternoon the day was overcast again and from six o'clock until we finally moored for the night at nine-thirty, we plugged along under pouring rain.

A few miles to westward of Lake Viken, the highest part of the waterway, the canal narrowed to a width, at places, of less than thirty feet. Here we noticed occasional mooring places along the bank and realized that if we happened to round a bend full bore and meet a vessel we should be up against it. Hearing, at length, a steamer whistling in the distance, we let discretion be our guide. Drifting up to a mooring place, we put lines ashore, stopped the motor and listened for further whistling.

But we straightway realized that if a steamer passed us here we should be in bad case, as the edge of the canal was shoal and the turn of our bilge rested against the stone riprap. So, preferring the unknown to the known, we got under way and with horn sounding for every turn continued toward Lake Viken.

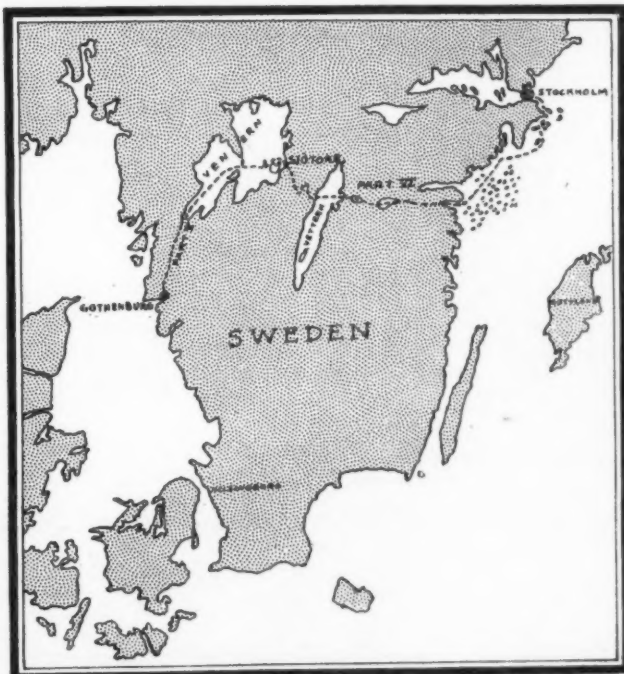
At length the last bend straightened out and we saw our steamer in the lock at Tatorp, on the west shore of the lake. As we drew near, the gates began to open and we learned what it

The harbor at Sjotorp was charming—after we had resorted to a microscope to find it

place to withdraw to escape the approaching behemoth. Making the best of a very bad bargain, we pushed broadside against a clump of alders on the south bank of the canal, and when Jim had jumped ashore with a line the rest of us with fingers and boat-hooks seized branches of the bushes.

Now the steamer left the lock and plunged toward us. And now the inevitable forward rush of the water in the narrow canal. But there was no danger yet, as the bushes fended us away from the stones of the bottom. But immediately the water sucked toward the steamer and our stern was drawn irresistibly with it. Branches broke off in our hands and boat-hooks slipped from our grasp. Paul, with a big, round fender, rushed to the port quarter, and when we struck the blow was deadened. No harm done, but we had had our fill of hippopotami.

Then it became our turn to enter the lock, and after a lift of a foot or so we were at last in the highest level. It was then six-thirty and the rain was doing its best to make the level higher, and it was the proper



Lucette's path by canal across Sweden from Gothenburg to Stockholm

(Continued on page 46)



The A.C.F. 30 footer is a good looking little cruiser, and drives along smartly with its Gray 6-40

A Double Cabin Thirty-Footer

*Most Unique Arrangement for a Small Boat Provides
Two Separate Cabins With Other Useful Accommodations*

ONE of the newest small cruisers to be completed and available as a stock cruiser is the A. C. F. 30 footer, built at the big shops of this company at Wilmington, Del. The layout of this boat is most unique for a small craft. One of the first things which will attract attention, is the extra little stateroom located in the stern of the boat just aft of the cockpit. It is arranged under a mahogany trunk and furnishes a most compact little room which can be occupied by two persons. The room itself is fitted with a built-in

dresser, two 7-foot berths, each 30 inches wide, and carpeted on the floor. Roomy outdoor space is provided in a large comfortable cockpit, which is fitted with a well-cushioned cross seat, and folding armchairs. The steering wheel and engine controls are at the forward end, while on the floor is a heavy layer of brass bound battleship linoleum.

The boat has ample accommodations for day cruising for a party of as many as eight to twelve people. These can be taken care of with ease, with no feeling

of over-crowding. Naturally, for more protracted cruising, the sleeping accommodations limit the party to six people. Just forward of the cockpit and inside the main cabin will be found a galley, and in the extreme bow the toilet room. Entrance from the cockpit is directly into the galley, which is fully equipped by the builder with china, silver, cooking utensils, stove, ice-box, sink, dish lockers, and dressers. The floor here is covered with brass bound linoleum in a similar way to the cockpit.

The main cabin space itself is separated from the galley by a half height bulk-head, which gives a feeling of roominess and allows a free circulation of air throughout the boat. The berths are so arranged, that the back rest of the lower berth swings up to form the upper, which will thus accommodate four persons at night. The finish of the interior is very pleasing, since an old ivory enamel is used with mahogany trim and a heavily carpeted floor.

The toilet room which is unusually large for a 30-foot boat, is finished in white enamel with a linoleum floor, and further has an exit hatch to the forward deck. The usual fixtures are supplied with shelves for linens, and two built-in clothes lockers.

The cockpit is protected from weather by a ma-



A corner of the galley showing the large ice box, dish racks, and stove



The after end of the boat showing the large cockpit space and the little trunk over the after cabin

Interior of the forward cabin which shows the arrangement of the berths, table, etc.



hogany windshield, with fixed glass on both sides, and three jump sash across the front. These are arranged to swing up and back. The top is covered with 10 oz. khaki. A dome light and a searchlight which are standard equipment are supported on this top.

The engine space is underneath the cockpit floor, and a large hatch provides access to it. The engine itself is a Six-40 Gray marine engine, with starter, generator, and storage battery, which drives the boat about 11 m.p.h. Two 25-gallon gasoline tanks are also in this compartment, arranged to fill from the deck. This entire space is finished in grey.

Down BORNEO'S

Great

Barito

Part II

By

John Edwin Hoag

Photographs by the Author

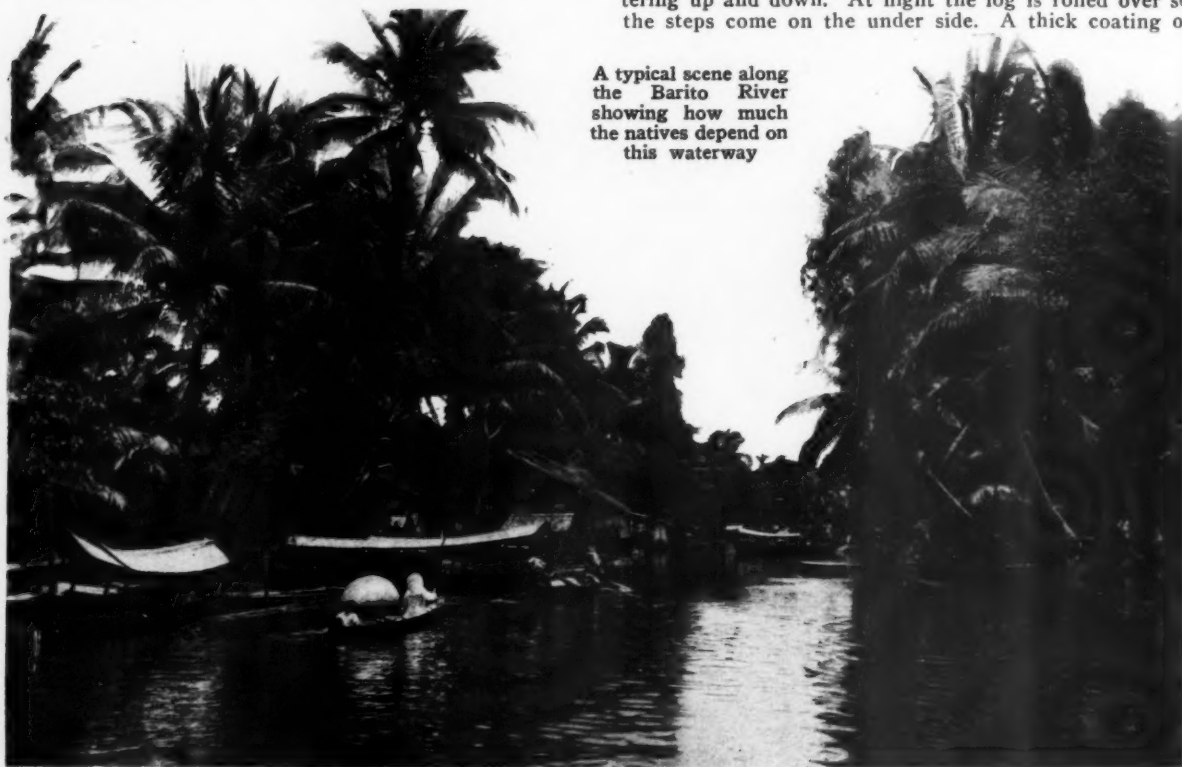
*Further Experiences of An
Adventurous American Who
Made An Outboard Engined
Cruise of 400 Miles Down
One of Borneo's Great Rivers*

GETTING an early morning start on the second day of our cruise down the Barito, we arranged to let Negara go ahead of us, and catch up with her at the native village of Boentok, where she was to load crude rubber and rattan for transport down the river. The day was chiefly one of cruising downstream through fairly fast water, shooting crocodiles, making photographs, and watching monkeys and strange birds. Along this stretch of roughly 100 miles of river, are numerous native villages,—Moearalemoe, Leboeh, Sikanoengbang, Moearamontalat, Toembanghiang, and others of less importance. Every Borneo village is characterized by certain things, which are as typical of the Borneese as cathedrals are typical of Spain. Every village has its

Mohammedan mosque, whose odd shaped roof usually towers above the surrounding jungle. The shops, and every native institution of the town fronts upon the water, because it is only upon the water that human life moves.

Up in the interior of Borneo all the native houses are built on ironwood stiles. This is for the dual purpose of raising the houses above the encroachments of water during the wet monsoon season, and to protect the inhabitants against marauding beasts, reptiles, and crawling insects. Entrance and exit is provided for by means of a slick-surfaced log, which slopes upward from the ground to the doorway. In the day time the surface of the log that is uppermost has a series of steps cut into it to provide traction spots for the bare feet that go pattering up and down. At night the log is rolled over so the steps come on the under side. A thick coating of

A typical scene along
the Barito River
showing how much
the natives depend on
this waterway



The steamer pushing upstream at the right is what van Laar called a competition boat of De Koninklijke Paketvaart Maatschappij, the company operating the Negara. The craft is operated by Chinamen



A floating bath house on the Barito at Boentok. The little Miss Borneo has her bath outside, and apparently the water is cold to her at 90 degs.

blood red palm oil applied to the smooth portions of the log completes the process of locking the door against all intruders.

The population of any of these Borneo villages can be readily and accurately estimated by counting the number of floating bath houses to be seen along both sides of the waterfront. The Mohammedan must have his bath, at least once, twice, or three times each day; so every family has a bath house where they bathe and pray. Inasmuch as the crocodiles promptly devour anyone who goes in the water, the bath houses are provided with bamboo buckets where the bathers dip the water from the river and throw it over themselves. The average Malay, or Dyak, or Bugenese family is usually about ten people. Thus, if there are 100 bath houses along the water front, it automatically follows that there

are about 1000 natives in the village, because there's a bath house for each family.

Due to a favorable downstream wind, the swift current, and an outboard motor that functioned perfectly, we came upon the outskirts of the Boentok bath houses nearly two hours ahead of our scheduled arrival there at six o'clock in the evening. As we rounded a bend within a hundred yards of the shore, an almost nude Dyak appeared on the edge of the jungle and frantically began waving to us—indicating that he wanted us to come ashore. Under the same circumstances further up the river, we'd have sent a few bullets in that direction, and put-putted right on downstream. But, here, we knew we were too close to a Dutch military post for any native to molest us. So, we drove ashore to see what the native wanted. Landing, he came toward the boat, and began a jabber, jabber, in the Dyak lingo, which meant nothing whatever to two Dutchmen and an American who understood not a word he said. We finally gathered, however, that his interest in us centered around the Evinrude Motor hanging on the stern of De Bovre. Unable to talk with the man, I suggested to van Laar and van Aiken that we take the native aboard, cruise down the river to Negara, and find Captain Ter Haar, who could interpret the fellow's language for us. The Dyak understood enough Malay for van Laar to make him understand the plan by speaking in that language, and the native climbed into the boat, apparently as happy as a schoolboy at the thought of getting one of the biggest thrills of his life. In no time at all we were down the river to the landing where Negara was tied up, and called out Captain Ter Haar to interpret the conversation.

For several minutes the captain jabbered with the native. Then turning to me, and speaking in English he said: "This chap is interested in the motor." This was followed by interpreted conversation, whereby the Dyak wanted to know all about how the motor would work on his 20-ft. proa (large dug-out canoe), how much gasoline the thing required, and the usual run of questions. He then wanted to know if the motor had sufficient power to shove the dinghy upstream against the current, which happened to be quite swift at that point. And, to answer that question, I asked him and the captain to get in the boat. Away we went up-stream—slowly, of course, but making good headway against the stream. The Dyak was all smiles. Returning to Negara, he explained through Captain Ter Haar that he wanted to go ashore for a few minutes, but would be right back. With that, the man hurried off like an ant to a picnic.

Before departing, however, the native wanted to know the price of the motor. I could only estimate it for him



A few of the odd collection of native boats to be seen along the waterfront at Bandjermasin. All of these craft move by the power of the wind, or human effort

Another type of proa seen on the Martapoera at Bandjermasin



on the basis of the price in America plus transportation, and duty. That brought the figure to 600 Guilders, Dutch money, or \$240 in American money. With that information the native was on his way, but was back again in ten minutes, as he had promised. Approaching me, he began jabbering in his native language as if I understood every word of it, and thrust a roll of Dutch bank notes into my hands. There were 600 Guilders worth of the notes. Captain Ter Haar appeared on the scene, and interpreted the conversation: The native wanted the motor, was ready to pay cash, and like the average American, he wanted it—RIGHT NOW! I tried to explain to the fellow that I'd quoted him the price of a new motor, while the one I was using was a second hand article that had seen service in Hawaii, in the Philippines, several parts of China, and in India; but that made no difference. He wanted it then and there in exchange for

never seen a small boat driven by motor power before. But, they realized the value of it instantly, wanted to buy it, and seemed amply able to produce the cash. It seems utterly unbelievable that a condition of this sort can exist in the Dutch East Indies with American outboard motor manufacture apparently sound asleep. There are fifty million people in Netherlands India, thousands of whom are prospective cash buyers of outboard motors. Yet, to my knowledge there isn't an American outboard motor manufacturer with a sales representative between continental Asia and Australia! The Boentok native who made the first cash offer of 600 Guilders for my Evinrude is: Kapada (Mister) Anang Atjie, and his address is c/o Kapada Bin Hadji, Mohammed Mansoer, Boentok, Borneo; Nederlandsch Oost Indie. If any of the outboard motor manufacturers want to try to sell him a motor, there may still be a chance to do it. Correspondence should be in English, Dutch, French, German, or Malay; which Kapada Anang Atjie can get translated at the office of the Dutch Resident right in his own home town.

On down the Barito from Boentok to Bandjermasin, the seaport of the Java Sea, the Borneo natives were interested in the motor, and one after another wanted to buy it for cash. If I'd only had a boatload of motors, things would have been right for a financial killing. Through this part

(Continued on page 50)



Brown, bob-tailed, Borneo monkeys, which are seen by the thousands along the sandstone cliffs overhanging the waters of the Barito river



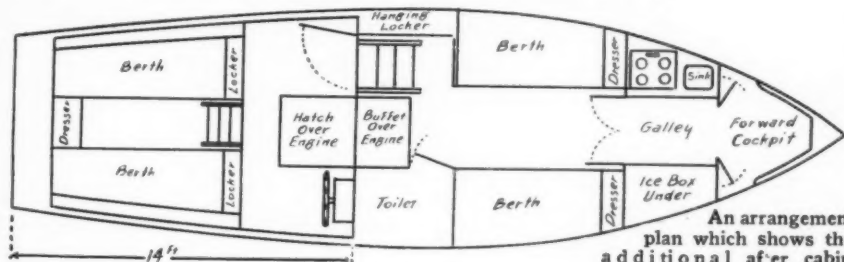
A recent photograph of Kawa showing the improved helmsman's position on the bridge deck

How Kawa Was Improved

An Interesting Conversion from a Raised-Deck to a Bridge-Deck Cruiser

AS originally launched in April, 1926, the 35 foot cruiser Kawa was a raised deck craft with a permanent top and windshield as shown in the illustration at the bottom of the page. This arrangement and design after a summer's test proved unsatisfactory for

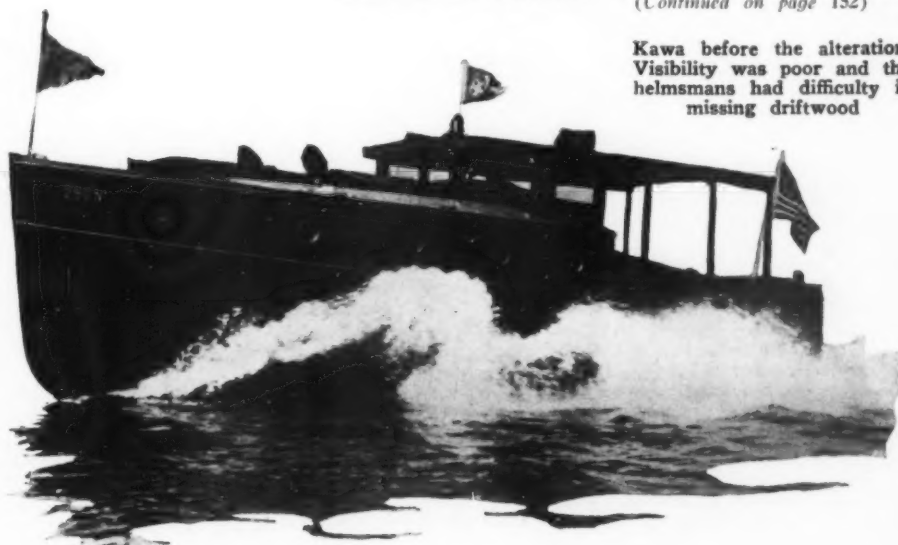
could come through the restricted openings. In the cabin the Pullman upper berths were too restricted for comfort, and cut off the ventilation from the lower berths, together with an insufficiency of headroom in both.



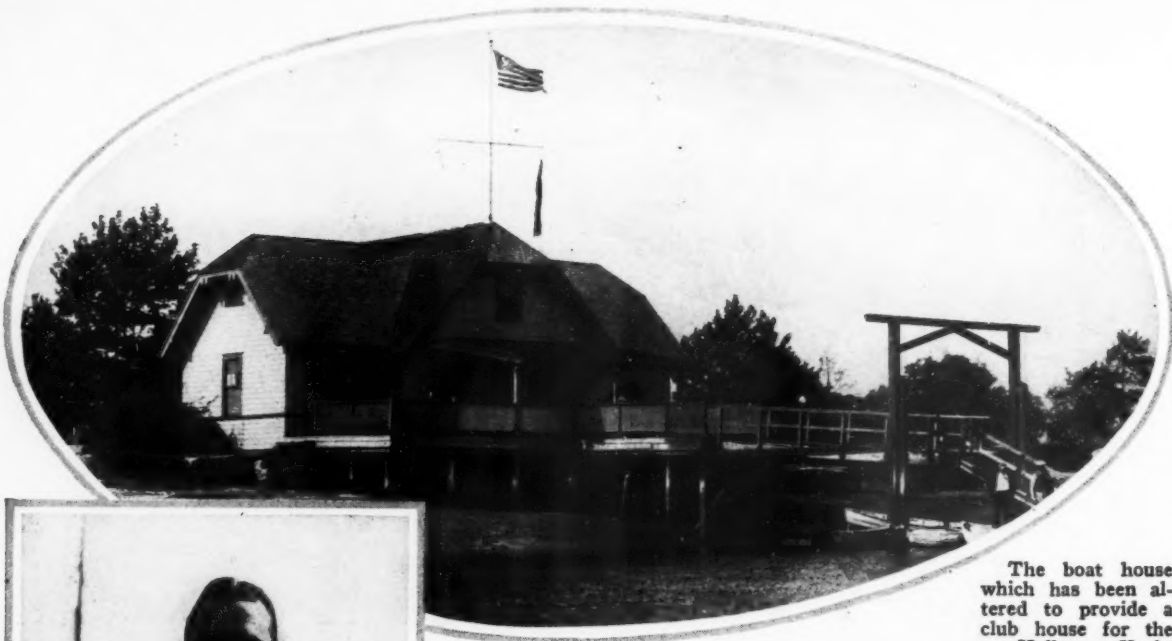
An arrangement plan which shows the additional after cabin gained by the conversion

The boat was originally designed to accommodate four persons and seldom carries more than this even for day cruising. In order to overcome the objections mentioned various changes were made which remedied these faults. In the space of 14-feet from the cabin bulkhead to the stern, an after cabin was built in. This was made 7-feet in length and placed so as not to disturb
(Continued on page 152)

several reasons. Among these was the fact that Kawa was too fast in a beam sea, there being too much weight at or below the waterline. Another objection was the poor visibility forward. This is a fault which is chronic with raised deck cruisers, and makes it difficult to see driftwood because of the raised deck and the relatively low cockpit floor line. Another fault was the uncomfortably hot cockpit space on a warm summer day. Even with the windows of the windshield open an insufficient volume of air



Kawa before the alteration. Visibility was poor and the helmsmans had difficulty in missing driftwood



The boat house which has been altered to provide a club house for the new Halloween Yacht Club of Stamford



Mayor Alfred N. Phillips, Jr., of Stamford, who is responsible for the fine yacht basin and club house in Halloween Park

STAMFORD

Looks After The Boats

Enterprising Connecticut City Under Leadership of Mayor Alfred M. Phillips, Jr., Arranges New Yacht Facilities

By Gregory Mason

NOT so very many years ago the base of Shippan Point, at Stamford, Connecticut, was a mere salt marsh, tenanted by yellowlegs, curlew and crabs. The road which reached the higher and drier extremity of the Point was built on a raised bed. Perhaps more than one yachtsman traveling by this route to the Stamford Yacht Club turned over in his mind the possibility of dredging this marsh to make a secure anchorage for yachts, for the anchorage off the Stamford Yacht Club is wide open to southeasters, and none too smooth a berth in a southwester.

However, the devotees of other sports than yachting saw the possibilities which lay in the opposite direction. A large part of the swamp was filled in to create Halloween Park, which offers recreation seekers golf, baseball, football and sea bathing. Yet a good deal of marsh remained to the westward of the park, that is, between it and the road down to the end of Shippan Point. Immediately westward of the park's bathing pavilion a little creek ran in northward under a bridge by which that pavilion could be reached. After passing under the bridge the creek at high tide filled a natural basin which ran roughly east and west. There were some deep holes in this salt water pond but too many shoal spots to make it available for mooring purposes. However, just southward of this bridge the brothers Muzzio established

a boat yard, and began bringing boats in by the creek to haul them out for the winter.

Approximately this was the situation when a few months ago Alfred N. Phillips, Jr., was elected to his second term as Mayor of Stamford. Mr. Phillips found, however, that during the two year interval since his previous term the sand from the Halloween Park bathing beach had begun to fill in the channel of the above mentioned creek, and that the city faced an expenditure of some \$15,000 for dredging to restore this channel to the Muzzio brothers, whose legal right to the use of it was unquestioned. Mayor Phillips heard, moreover, that the owner of the land just west of the mouth of the creek was planning to do some dredging on his own account off his own property, and the Mayor feared that this would not only lead to further erosion of the city's beach but would induce the caving in or washing away of private beaches down the eastern side of Shippan Point.

By some very pretty negotiating in which the Mayor exhibited a high degree of political finesse Mr. Phillips persuaded this land owner to abandon his dredging in return for the gift of a lot of new land which the dredge directed by the city pumped onto his marshy property from the bed of the creek and from the natural basin at its head. This owner,

(Continued on page 80)



A Familiar View

The Attractive Sky Line of New York City Seems to Stand Out to the Best Advantage When Viewed from the Water Front. Our Unusual View Was Taken from the Deck of the Fall River Steamer Commonwealth as She Lay at Her Pier in the Hudson River Before Starting on Her Nightly Journey Down Long Island Sound

Lookit!

Voyaging is Victory

Arabian Proverb

By Irving Anthony
Illustrations by Ned Hilton

SHE snorted in about sunset, with a most infernal banging and clatter. Her racket lifted me off my chair and drove me down to the bay shore. And it was for to see, if not to admire. She ran in until I was sure she would fetch bottom. Then the engine barked its final gusty cough and quit, while the anchor, well enmeshed in the coils of its own line went overboard as if hurled out of a catapult. The boat held her way until with a mighty wrench at her stem piece the anchor snubbed her while the line complained but held. Maurice River oyster schooners anchor flying to make sure they hook in the Delaware mud, but I had never seen an open boat of less than twenty feet imitate them.

It was like her that rounding up. She was all of a piece with it. Every ragged bit of line about her was coiled against the sun. The engine housing fell

into kindling wood if one leaned upon it, dropping the unfortunate upon the whirling flywheel. The gas tank was patched by a adhesive plaster. She was painted inside with the death red of the fishing dories where they reach their last season. Outside, she was a battered white, and her short decks had once been a

fine shamrock green.

Even her engine had its troubles. It was a patient and sweet tempered Bridgeport of ancient pedigree. It insisted upon running just to show how good it once had been. Its eccentric strap clanged

like an egg beater. One of the base hand hole plates had a blown gasket which wheezed and whistled. The wrist pin must have been worn to but a shell of its former buxom self. The ignition would not bear the slight of being ignored, but had often to be held to its duty by a pair of pliers when a spring weakened. There was no muffler in the outfit in the interest of economy of power. The jacket held its water by the kindness of a wooden plug, which sometimes grew sulky and fell out. To stop the motor, one tore loose a wire in the circuit; there was no switch to get out of order.

"How do you like her?" asked Dick thoughtfully, when I had rowed off to her in the tender.

"Well, at a fair price she's no doubt a good buy," I said, thinking I was speaking the truth without being too brutal.

"I love that bow," said Dan, "look at it."

Dan had just dropped a cigarette butt between the gas tank and the engine box, where it was then wedged. The ruddy cone of its fire glowed ominously. Dan was doubled over the long cylinder of galvanized iron, from which the paint hung in peeling dog ears, patiently poking.

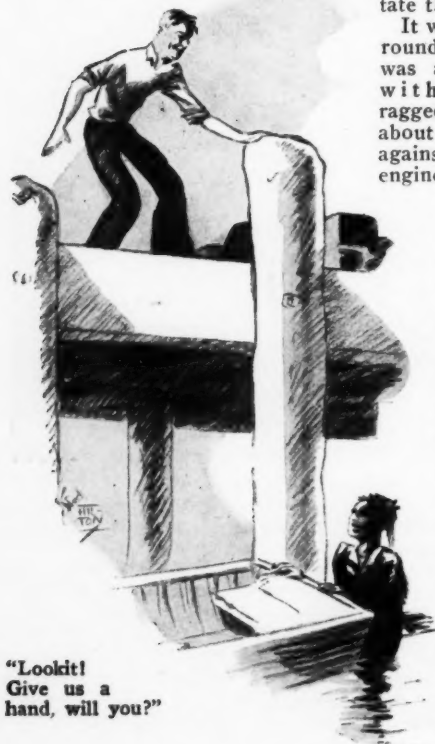
"Go anywhere," I said, thinking of heaven, hell or Hoboken, if the cigarette should prove misanthropic and do its worst.

"We just named her," said Dan dully, much preoccupied with the issues of the life to come.

I waited.

"The Laughing Jackass," burst in Dick.

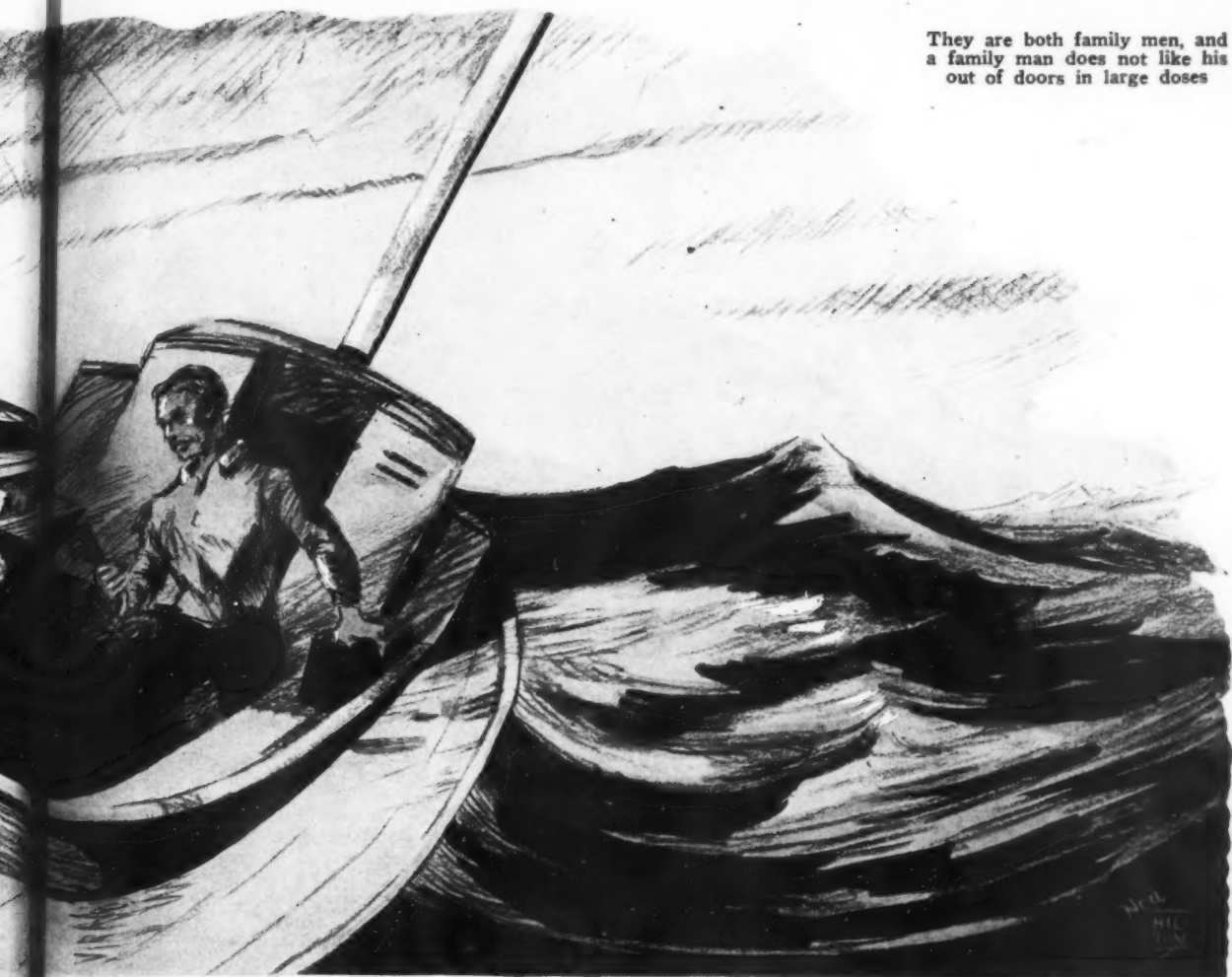
"Why?" I asked at the proper moment.



"Lookit!
Give us a
hand, will you?"



They are both family men, and a family man does not like his out of doors in large doses



Dan straightened up with the elusive butt between his thumb and finger, fire comfortably tucked into the shelter of his clutching hand.

"She is peculiarly given to running backwards," he said.

Both laughed and I joined them. They were too elated for me to prevent them from dying happy. Dan waved the butt dramatically, seemingly disappointed in his failure at martyrdom. Meanwhile, he talked. Not much to look at but a boat. It ran. Hadn't it just brought them home?

"Go fishing with us tomorrow?" invited Dick.

"Going to the inlet in the morning. What say Dick?" countered Dan.

"Get them fish. I'll say just that. Will you come?" Dick fairly beamed in eagerness.

"I'm afraid I'm too busy tomorrow," he said. "I've got a generator job in the morning; may take ten minutes or a day."

To tell the truth I didn't relish the craft. I've taken ten-foot sneakboxes up and down the twelve miles of bay in winter, ice or no ice, but not such a misbegotten accident as that poor little, run down boat.

"Fish we're going after, and fishermen we are, eh Dick?" said Dan boastfully.

"Right oh, and right. We'll show the bay man here tomorrow."

"When do you reckon to get under way," I asked mildly.

"Soon as you'll call us," said the short and pudgy Dan with the solemnity of an owl.

"Four o'clock I'll get you off," I promised, catching

a little of their determined spirit, "Four o'clock as sure as Buster Island kills geese. I got a chowder for you tonight as soon as we carry this tender of mine up the beach. She's old, but she's sweet. Anyhow she gets no more dragging while I own her."

I turned them out before it started to chill off for sunrise. It promised a fair day; too clean to be windless. Dan came down rosy as a baby, eyes all sleep puckered; Dick, grey, with dark shadows under his eyes. There were a few mosquitoes out for new blood and clouds of midges. As fast as the midges climbed through the screen they flew into the lamp and were burned to death or fell into the coffee and were drowned. Neither man heeded them.

They gulped their breakfasts and seized their rods and reels. Almost on a run they started off, merry as two urchins. Then Destiny stepped in. I called them back. They set down the spare gasoline can they swung between them and came.

In the name of Nimrod I lent them my ditty box. Thrown completely off my guard by their air of well being, their good cheer, I urged upon them my ten-year-old treasure, every item of which I knew as a girl once did her hair ribbons. In the winter I had culled the leaders, replaced lost leads and swivels, polished my bass spinners lovingly, added new squids of experimental pattern. With the box they could accomplish wonders, if they were fishermen, and I thrust the smooth leather handle of the kit into Dick's hand as a supreme favor.

With that they were off to the bay shore in earnest, and I dived back into the covers for forty winks and a belated dream of stranded alcohol or ambergris. I



"Maybe it's well we didn't get off," said Dan. "I forgot this can of gas."

thought I heard their motor start just before I dropped off, but I fell asleep about the time the adventure took its first turn. I woke to full daylight, and found Dick shaking me by the shoulder. Dan stood in the doorway, his face a mask of frustration.

"Thought you went fishing," I said.

Dick winced, and a mean look came into his green eyes for the moment, then he said:

"We just got started a few minutes ago. The engine wouldn't fire. Then at the first turn she wound up the dinghy's anchor line in her propeller."

"Some line too," said Dan. It was then I noticed the puddle of water at his feet, and his face a map of desolation. I was about to blaspheme all heaven and earth gloriously, when I caught myself.

"Was it hard to get off?" I asked instead.

"Two hours nearly," said Dan, dully. "It was wrapped up as tight as if it had been sweated on."

It seems that when they went off in the dark so happily, they got safely on board their packet of joy, rods, ditty box and all. They cast loose the dinghy, with the anchor close aboard. In turn they cranked and fussed, and when at last they remembered to prime the motor with a half gas, half oil charge, the sun was up and the dinghy line stepped into their equation to choke the life out of their just revived motor. When the tender snout bumped their gunwale, and the motor stopped, they realized their predicament. Dan looked at Dick, and Dick sucked his pipe and clucked dismally. Dan thinking the water to be two feet deep, and forgetting his boat had been adrift some minutes, stepped off and went down over his head in the eighteen foot hole left by the dredge during the road fill. When he had recovered from the shock he tugged and twisted at the dinghy cable. His cherubic face lost its smile, and his tongue sharpened to some purpose. Finally, the last strand was loosened and he found that the anchor had been torn off and was somewhere on the bottom of the bay.

"Now what do you think of that?" he said dolorously, and so they had come ashore to me rather crestfallen, and Dan soaking wet.

"Better let me lend you some dry clothes," I said.

"Haven't time. Going fishing."

"Well, go ahead and go," I said.

"Got to get an anchor for the dinghy first," said Dick, glaring at me as if I had been the cause of all the delay.

I ducked under the house, cut the lashings on my sneak box anchor and tendered it to them. Then on second thought I changed my mind.

"I'll go down with you and see you get under way."

"Maybe it's well we didn't get off," said Dan philosophically. "I forgot this five gallon can and there wasn't much in her tank last night."

He tapped the galvanized iron reflectively. It sat exactly where he had left it when he walked off in the dark.

"Let's go fishing," said Dick. "I'm for the great open spaces, I am."

So we went down to the bay shore again and they rowed off, got clear of the newly anchored dinghy, started their engine and both sitting in the stern, with the bow sky poking, they bore away. They had not reached Barnegat Drawbridge, a scant two miles away, when the strengthening sun brought the wind. It came as a dark line on the water. It came out of the northwest, as I had thought it would, but had not dared prophesy. The trip down would be pleasant, a clean runoff the wind that would favor them, but coming back would be different. As they slipped through the drawbridge with its engine house like a red cheesebox I turned to go home. It was then I kicked the five gallons of gas that Dan had needed and forgotten again. I laughed, it was cruel, but I laughed heartily. Two babes in a boat, each near forty years of infancy. So they went down the bay with little gas, a head wind and an afternoon ebb tide. I roared into the face of the morning sun, took the gas can and went home.

Now about the time I discovered the forgotten reserve it seems Dan too, threw away his cigarette, slapped his thigh, clenched his teeth and cried:

"Lookit—I forgot the gas."

"What?" asked Dick, unable to hear above the wheezing of the engine.

"Gas. I left the can of gas on the bay shore."

There are times when Dick can look as malevolent as a sand shark. He glowered balefully, green eyed and furious.

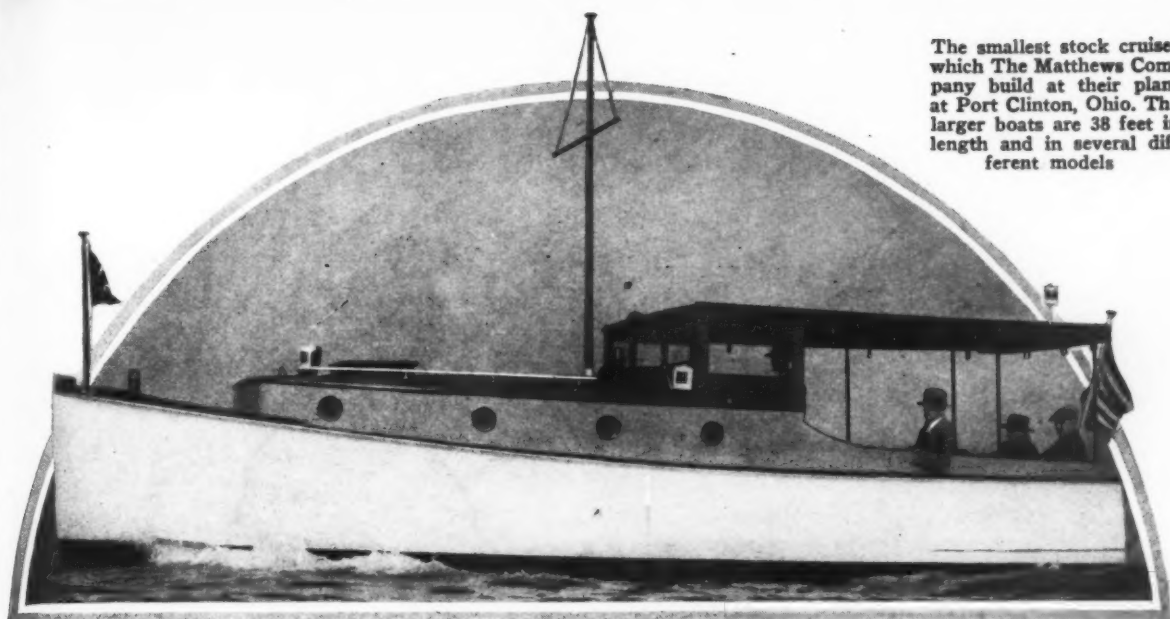
"We're going fishing," he said doggedly to kill any suggestion of compromise.

"The tank's nearly empty. We can't get to the inlet, let alone back."

"Let's go as far as we can," said Dick meditatively tamping his freshly loaded pipe.

Now they are both family men, and if Kipling is right, a family man does not like his out of doors in large doses. Dick may have felt the urge of the true fisher insanely enough to make him forget all else at the moment. The dim horizon

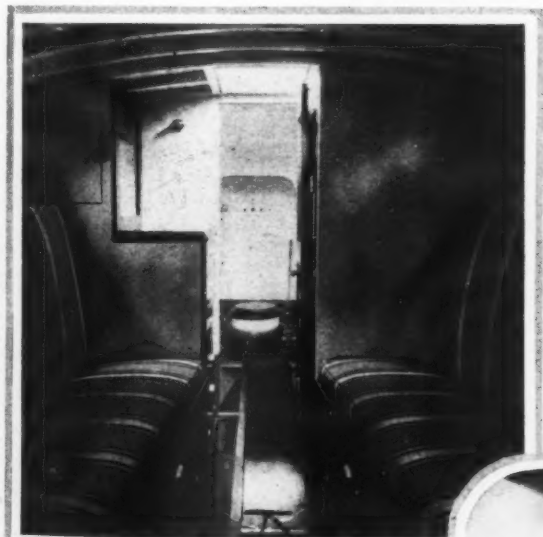
(Continued on page 92)



The smallest stock cruiser which The Matthews Company build at their plant at Port Clinton, Ohio. The larger boats are 38 feet in length and in several different models

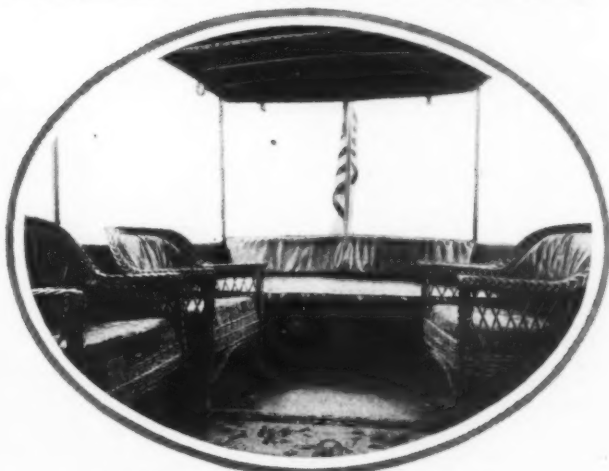
An Able SMALL CRUISER

The Matthews 28-Foot Stock Cruiser Is a Roomy and Substantial Little Craft



The little 28 foot Matthews cruiser follows the conventional cabin arrangement with two large double berths, and a toilet space forward. Galley is at the after end of cabin

Shelter for the cockpit and helmsman is provided by a glass windshield enclosure which affords ample protection. Steering and engine controls are handled from the operator's station on starboard side



An abundance of space is available in the cockpit for several large chairs and also for a roomy seat across the after end which will accommodate as many persons as the little boat should carry





The oldest house in the United States. Under three flags. Now operated and owned by St. Augustine Historical Society

Rambles in FLORIDA

WE found New Smyrna a great little city. Well, it should be. They've had four hundred years to put in lights, water, sewers, pave the streets, and build this yacht slip here in the end of Main Street. I wonder whether we'll ever get America done.

Our principal urge at the moment, however, was to fill the icebox, gas tank, get groceries and a few other things, so we set about arranging the details. Not much effort. The fuel supply was right alongside at the stern of the 38 and all we did about it was to say "fill 'er up." The man said "Yez-zir" (I wonder what part of the country he came from) and, he did. When we returned, we thought the job had not been done because the deck and cockpit were spotless. Here was a crew with boat sense and if they did get any dirt around, they certainly cleaned it up before we got back.

Just across the street is the Yacht Club and Chamber of Commerce—and Secretary Small. If you want to know anything in New Smyrna, ask Secretary Small. He must have been there the full four hundred and fourteen years, because he told us the history of the fine old ruins of the Spanish era; gave us navigating directions; told us where everything worth seeing was to be found; and directed us to the best places to buy bacon. He talks about old Ponce de Leon as though he were a present-day member of the Club.

Ponce rambled through these waters no end. When he poked the nose of his queer old galleon into what we know as Mosquito Inlet, he named it the River of the Four Cross because the confluence of the Hillsborough and the Halifax rivers, with the Inlet and Stonehouse Creek, forms a basin which a deeply religious imagination might fashion into a cross. We also know that he rambled on southward and saw the eminence which we call Turtle Mound. And, I believe it looks today just as it did when the Disappointed Lover first laid eyes on it.

Not long ago, when progress dictated the removal of a shell mound almost in the center of the city, ruins of an old Spanish fortress were uncovered when the mound was dug away. New Smyrna

got quite het up over this discovery and immediately went to work to substantiate with fact, the theory that New Smyrna, not St. Augustine, is the site of the first settlement in the New World. Recent discoveries seem to have satisfied the New Smyrnians that this is true, and war between New Smyrna and St. Augustine may break out at any moment.



*Part Five of an Interesting Cruise
Which Describes the Inland Route
Between New Smyrna and Jackson-
ville with Some Interesting Side
Lights on Early Spanish History*

By

Clarence E. Bosworth

WATERS

Our tour showed us the old sugar mill, the foundations of the old Spanish fort which probably was never completed, the ruins of the old stone house, and the old mission. I found the ruins of the mission particularly impressive as these great arches continue to stand so silent and majestic, surrounded with tropical growths which seem to shut it off from the rest of the world and give it the seclusion which antiquity demands.



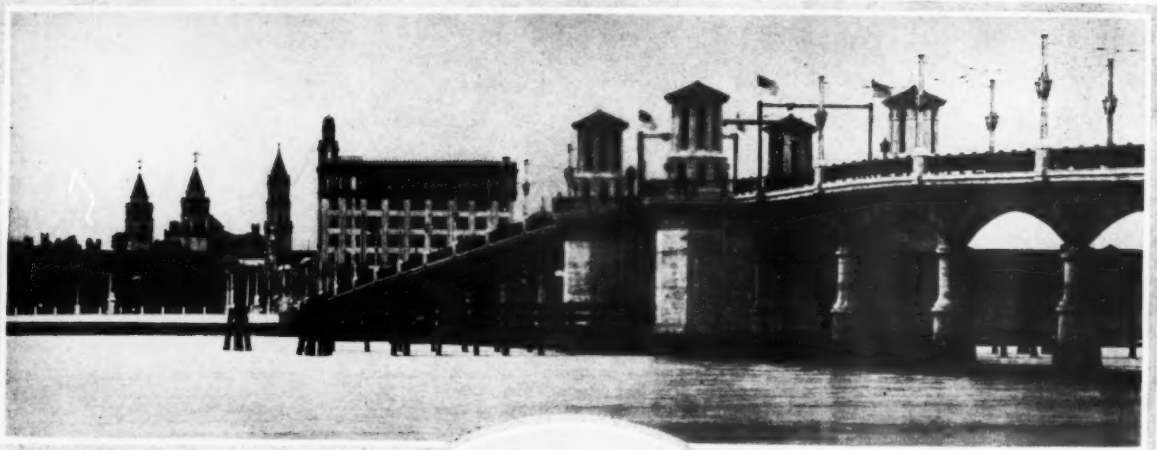
Another view of inland water in
the vicinity of St. Augustine,
Florida

The old Spanish Mission at New
Smyrna was built in the Seven-
teenth Century, and its ruins are
much like those of the convent
of Guadaloupe in the Philippine
Islands

Its general surroundings and appearance are much like those of the ruins of the old convent of Guadaloupe, just outside Manila over in the Philippines, which people travel thousands of miles to see. New Smyrna offers just as much in this line and, it's much nearer.

Turnbull seems to be a name to conjure with in New Smyrna and inquiry brought out the fact that away back in 1767, Dr. Andrew Turnbull and some English associates, secured a grant of sixty thousand acres and brought fifteen hundred farmers from the island of Minorca, over in the Mediterranean, to complete the greatest colonization scheme in the early history of North America. There are people in Florida today who are pointed out as Minorcans. I wonder whether they are descend-





New one million dollar bridge extending across Matanzas Bay to Anastasia Island, St. Augustine

ants of these early colonists.

Also, this was a most ambitious scheme for those days and I wonder why our school histories are silent on the subject. I think I'll write to Mayor Thompson about it. New Smyrna is justly proud of Coronado Beach which is a fine stretch of hard, level sand, comparable to Daytona's famous beach. A new bridge across the Hillsborough River makes it easy to get to.

By the way, the mania for calling all strips of inland water along the East Coast, the Indian River, has hit New Smyrna and when you hear them talking about the Indian River, you may know that they mean the Hillsborough, though I can see no objection to calling the entire waterway by the better known name.

We left New Smyrna to head almost due east, which seemed all wrong, but after about a mile of this, we changed to a generally northward course and that seemed more natural. The course is well marked but many islands are in the river bottom around New Smyrna and it is well to keep an eye on the markings or you'll run up a blind alley or climb a mud-bank. There is plenty of water, that is for a boat with no



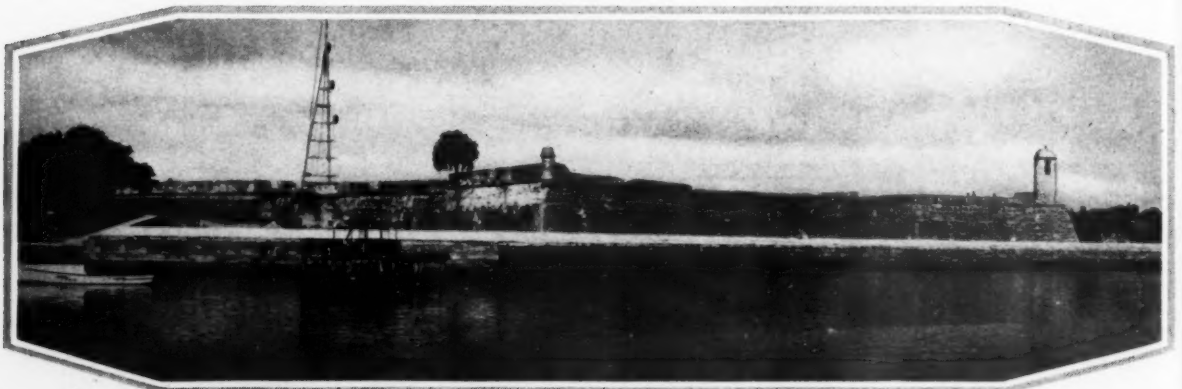
Mosquito inlet was discovered by Ponce De Leon. He named it the River of the Four Cross

more draft than our Matthews, all the way to Mosquito Inlet. Follow the Channel, which is generally well over to the right after making the turn at Alden's about a mile from Main Street.

The sands in Mosquito Inlet shift about as fast and uncertainly as in any inlet on the whole East Coast, but the markings are well cared for and if you will watch the buoys, you'll probably keep out of trouble. We followed the directions given us ashore and ran well out into the Inlet and then turned our tail to the Atlantic and ran back

into the placid waters of the Halifax. A stiff east wind had been blowing long enough to pile up a very considerable ground swell and put a nasty chop on top of that.

We ran almost due east for about a quarter-mile until we were sure we had cleared the bar. The seas were big enough to lift the bow right up high and they were deep enough so that when we dropped down into them, we expected to whack on bottom but nothing so unfortunate happened. Dolphin rose and fell as though it was the most natural thing in the world. (Continued on page 124)



Old Fort Marion begun in 1565 as San Juan de Pino, finished as San Marcos in 1776 and renamed in 1825 as Fort Marion



A view on the inland waterways near Miami

FLORIDA

Season

Opens

Miami Schedules Water Events for First Week in January—Annual Biscayne Bay Regatta to Be Held March 16 and 17—Contests for Col. E. H. R. Green Trophy for Outboards, the Governor Martin and Miami Beach Chamber of Commerce Trophies—Gar Wood to Try for 100 Miles an Hour

THE winter yachting is under way, particularly along the shores of Biscayne Bay, at Miami and Miami Beach. The formal activities start the first week in January, when the City of Miami has a week of festivities, to commemorate the completion of \$300,000,000 worth of improvements. The last two days of this week will be devoted to various marine events, rowing and outboard motor events and the like. From now until the last of March this part of the world will be the home of yachtsmen and the number that are expected to vacation there this winter exceeds by many thousands the number of yachtsmen that have been there other winters.

The Annual Biscayne Bay Regatta at which the southern championships will be decided will be held March 16 and 17. On March 19, 20 and 21, the City of Miami Beach is planning a motor boat show to be held at Flamingo Park, the first out of doors motor boat show ever held.

At the Biscayne Bay regatta several important championships are at stake and a number of valuable perpetual trophies will be raced for. Perhaps the most important of these will be the contest of the Colonel E. H. R. Green Trophy representing the Outboard Motor Boat Championship of this country. There are no restrictions as to the hull or piston displacement placed on the boats, which can compete for this trophy so the race is expected to attract the fastest outboards from all over the country. Last winter's race was won by Baby Bandit, owned by J. A. Fiske of Cocoa, Florida. Besides the possession of the Colonel E. H. R. Green Trophy for one year, an exact replica is presented to the winner each year.

At the Miami Beach races in March the competition for the Governor Martin Trophy will take place. This race is open to boats of the Biscayne Baby Class. The

annual race for the Miami Beach Chamber of Commerce Trophy is also scheduled. This is a free for all class, open to all boats.

Gar Wood, the speed king, has announced that he will build a new hydroplane this winter and race it at the Miami Beach races in an effort to establish a new world one-mile record. This record now stands at 80.567 miles per hour and was made by Mr. Wood himself at the Detroit regatta in 1922. Commodore Wood has long hoped to be able to build a boat some day that would do 100 miles an hour and it is reported that his new craft will be built with this goal in view.

In addition to the above races, there will be events for practically all of the other popular classes, such as the 151 inch hydroplanes, Chriscraft, Baby Gars, Dolphins, as well as Classes A, B and C Outboards. Entries for this regatta should be sent to C. W. Chase, Jr., Miami Beach, Florida or to the Editor of MoToR Boating.

As already mentioned, the City of Miami during the week of January 2nd, will celebrate the completion of \$300,000,000 in public development and improvements, most of the facilities being for the accommodation of winter tourists and visiting yachtsmen. These increased facilities are the basis of Miami's claim that their city is the world's greatest winter resort.

Among the improvements which have been recently completed, are included the completion of Miami Harbor to a 25 foot depth, the new Bay Front Park, Biscayne Four Way Boulevard, the new Venetian Causeway, the Olympic Theatre costing a million dollars, several new ships of the Clyde Line to commute between New York and Miami, a million dollars worth of new docks and warehouses, the Dade Country Causeway, a drainage district making 200,000 acres of soil ready for cultivation, new public utilities costing \$15,000,000, new street paving and bridges, a new Federal Highway to Jacksonville costing \$12,000,000, new hotels and apartments valued at \$150,000,000, Seaboard Air Line Railway entry to Miami which cost \$25,000,000, the

(Continued on page 156)

The steam
yacht Vanadis,
designed
by Tams &
King



TAMS & KING

Incorporate

*Old Firm of Naval Architects and Engineers
Makes Changes in Organization and Personnel
to Care for Large Increase in Business—
Some of the Country's Largest and Most
Represented Motor Yachts Are Included
Among Designs Produced by This Firm*

Aloha; the steam yachts Vanadis, Noma, Rheclair and Nirvana; the motor yachts Tarantula, Sabalo and Alkacore are all from the designs by this firm.

Among the most recent boats by Tams & King, several have won distinctive places in their classes. Lottie K. and Phantom without doubt the fastest commuting boats; the Oheka and Brook II, luxurious day cruisers; the Samuri, one hundred foot houseboat, and the Diesel yacht Nevada, said to be one of the smoothest running yachts of its type afloat.

Two new members have been added to the corporation whose names are well-known, Clement G. Amory as Vice President, Albert W. Crouch as Secretary.

Mr. Amory was brought up in the yachting business with his father in the Consolidated Ship-building Corporation from which firm he resigned as treasurer three years ago. Mr. Amory's twenty years in the yacht and engine business includes practical and theoretical experience in all its branches, both in sales and manufacture. Mr. Crouch started with Tams, Lemoine and Crane many years ago when they were designing the large sailing and steam yachts still famous today. Since then he has been in the designing departments of various of the more prominent yacht and motor boat builders and has had vast experience on all types and sizes of yachts.

Under the guidance of Mr. Tams with Mr. King and Mr. Offer who have worked together for twenty-five years in the yacht brokerage business and Mr. Amory

(Continued on page 162)

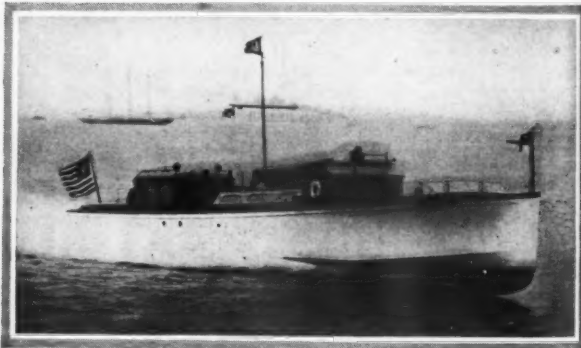
TAMS & KING, Incorporated, on January first takes over the business of Tams & King, a partnership of J. Frederic Tams and Charles King, carrying on a yacht brokerage and designing business at 250 Park Avenue, New York City.

The new corporation is headed by J. Frederic Tams as chairman of the board, Charles King as president and Edgar Offer, who has been associated with Mr. Tams and Mr. King for many years, as treasurer.

J. Frederic Tams, one of the pioneers in the yacht brokerage and designing business, started in the early nineties what in a few years became the famous partnership of Tams Lemoine & Crane. Charles King, who had been with the firm for many years became a partner in 1910. In 1914 Clinton H. Crane withdrew and in 1921 the firm's name was changed to Tams & King.

In addition to their extensive yacht brokerage business many noted craft of all types came from their designing boards including the famous auxiliary bark Aloha and the more recent high speed commuter Oheka.

The famous hydroplanes "Dixie, fastest of all of their times; the schooner yachts, Latona, Dervish and Endymion; the auxiliary yachts Idler, Ariadne, Alcione and



Phantom, a super-speed cruiser, powered with two Wright Typhoon motors. This is a 1927 boat designed by Tams & King, and will be used next summer by her owner to commute to New York

The Newest in LARGE Gasoline ENGINES

*Newest Heavy Duty Marine Engines of Large
Size Designed to Develop 425 H.P. in Six
Cylinders and 565 H.P. in Eight Cylinders*

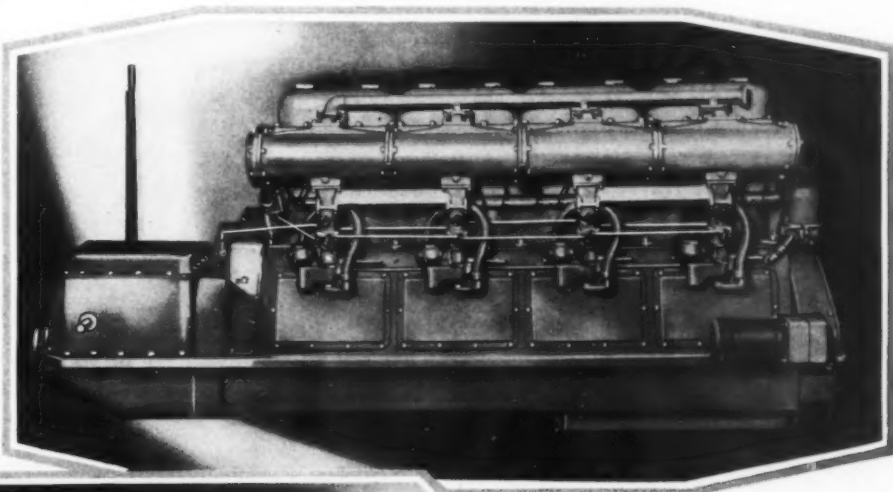
A NUMBER of large bore high speed and high duty gasoline engines are being constructed at the Sterling plant. These are six and eight cylinder engines with 8-inch bore 9-inch stroke, developing in a six cylinder model, 425 horsepower at 1200 revolutions and 565 horsepower in the eight cylinder at 1200 revolutions. These horsepower were developed on the test block under regular running conditions and if corrected for barometric pressure and altitude, the sea level power would run considerably higher.

The new Sterling engines are built with iron crank cases and weigh about 15 pounds per horsepower excluding batteries, but including electric starters and generators. The crank shaft follows the usual Sterling practice of being very large in diameter, 4 inches, with extra long bearings, having a total effective length of 22 1/4 inches in the six cylinder model. These bearings are fitted without shims, entailing the most accurate workmanship and the most rigid construction. The crank shaft is counterweighted and dynamically balanced, a feature that is exclusive with Sterling in the building of large engines.

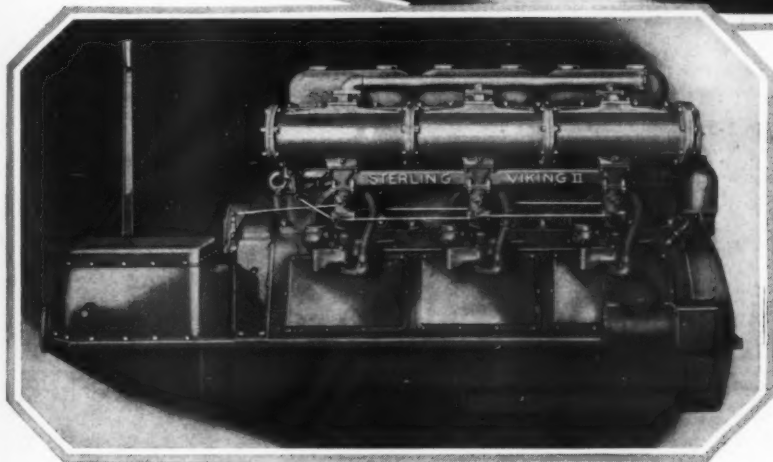
Counter-weights are gradually being adopted in the automobile industry, and are said to eliminate vibration, the actual reason being calculable in a reduction of 55 percent of the bearing loads.

The cylinder casting is a long water jacket in which the cylinder walls are inserted. This construction enables the making of more perfect cylinder castings, and, with the removable cylinder walls of uniform thickness, they run at an even temperature, thereby assuring better fitting pistons for many years. The cylinders project down into the upper crank case, guiding the piston the full length of the stroke,

(Continued on page 134)



The newest of the Sterling engines, the 8 cylinder Viking. This powerful engine develops 565 h.p. at 1,200 revolutions on a bore and stroke of 8 by 9 inches



The corresponding 6 cylinder Viking engine is generally similar in all essential details. It is designed to develop 425 h.p.



A view of the new Universal Motor Company's big plant at Oshkosh. The building is a fine example of modern industrial architecture

UNIVERSAL

Builds New Factory

*Popular Motor Company Outgrows Its Old Quarters
and Builds Most Modern Factory in the Industry*

EXPLICIT confidence was expressed in the marine motor industry by the Directors of the Universal Motor Company of Oshkosh, Wisconsin, when they authorized the building of the largest and most modern factory in the industry.

Having outgrown its present quarters in spite of the fact that additions were added from time to time until no more building space was available near this site, the Universal Motor Company decided to build a new plant.

A large tract of land was acquired at the north end of the city which is ideally located as it is bounded on the west by the Soo tracks and on the east by the Chicago and Northwestern tracks. The location is only two blocks from Lake Winnebago where the Company's boats are conveniently located for testing motors.

Work on the new factory was started in the early part of the summer and the plant is now completed.

The new factory is a large spacious building with 60,000 square feet of floor space. The Company also owns several acres of adjoining land, a part of which be available for future expansion, and the remainder will be used for recreation grounds for the employees.

Built of brick on a concrete foundation and with a steel superstructure, the building is most modern and very handsome for a factory building.

One of the features that impresses the visitor is the

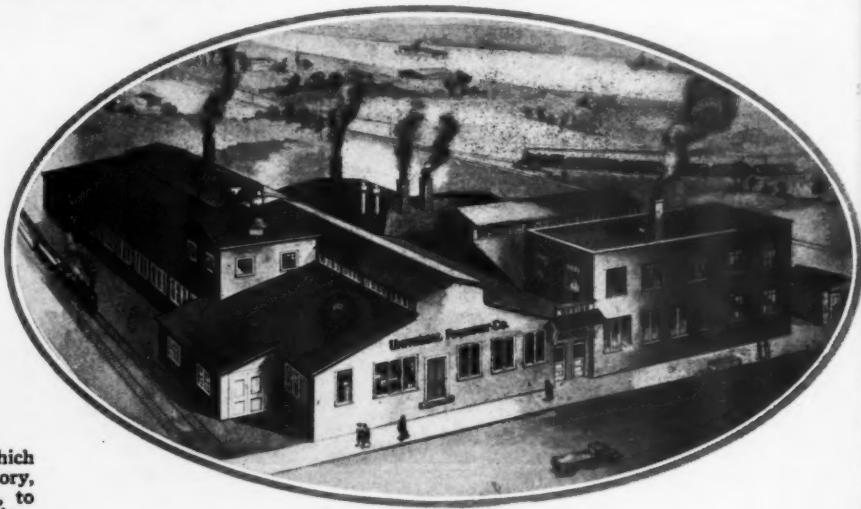
The foundry buildings which are separate from the factory, have been added to also, to provide additional capacity

daylight system employed. This system provides a remarkable amount of working light and the effect is produced by thousands of panes of glass set in steel frames along the entire length and sides of the building. The north, west, and south sides are practically huge windows. In addition an extensive system of skylights, together with aluminum painted walls and ceiling on the inside makes the interior fairly radiate brightness.

Another interesting feature is the unique heating system employed. Two boilers are used and one of these boilers is large enough to handle both the office and factory. The boilers are inter-connected and the smaller boiler is heated with an oil burner which is automatically controlled from the office by a thermostat. The heat is distributed through the factory by the new Modine heating units.

The building has many

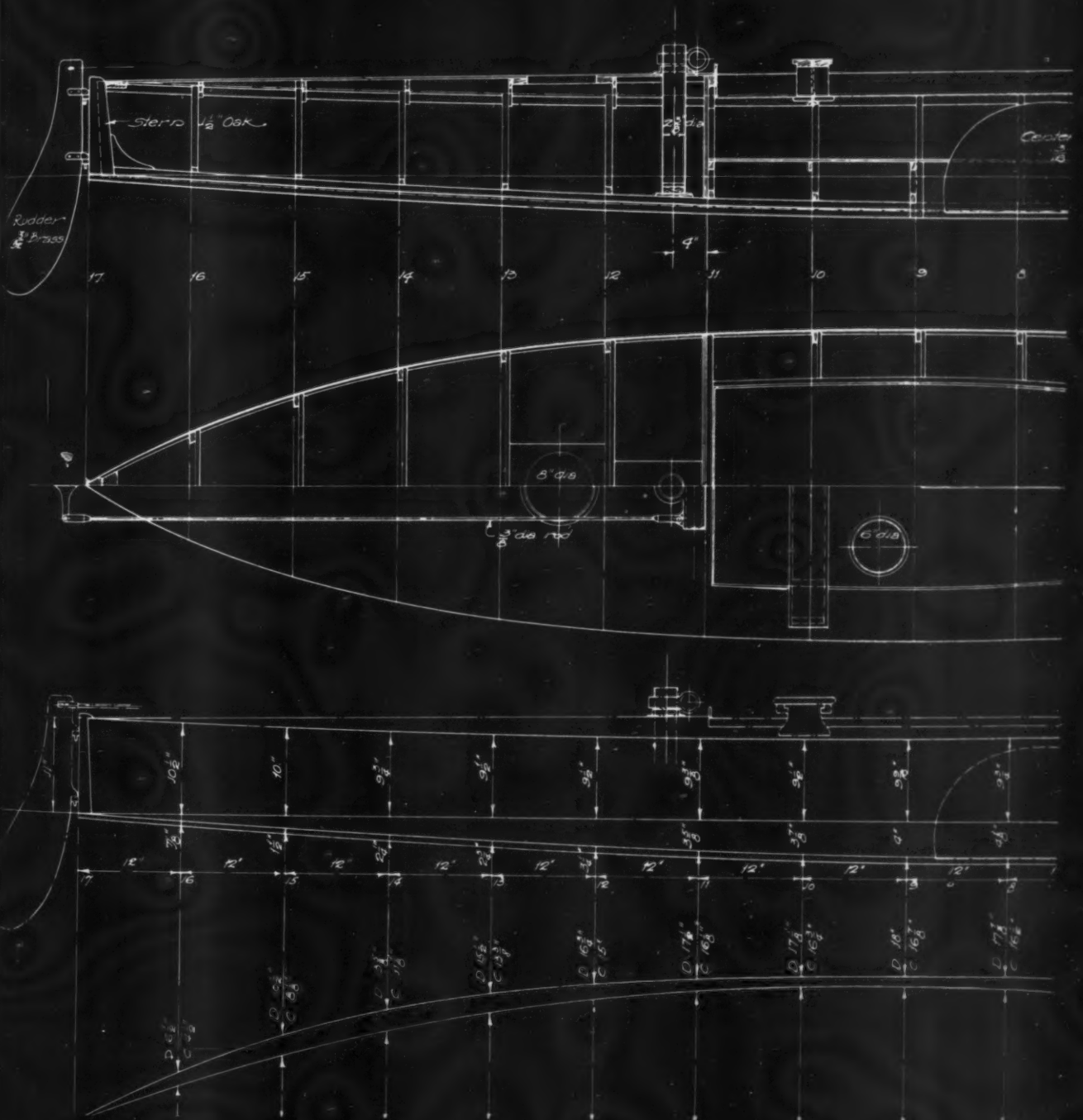
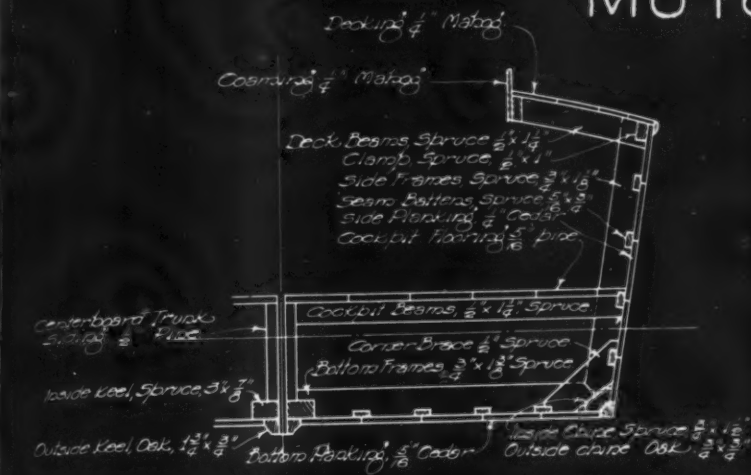
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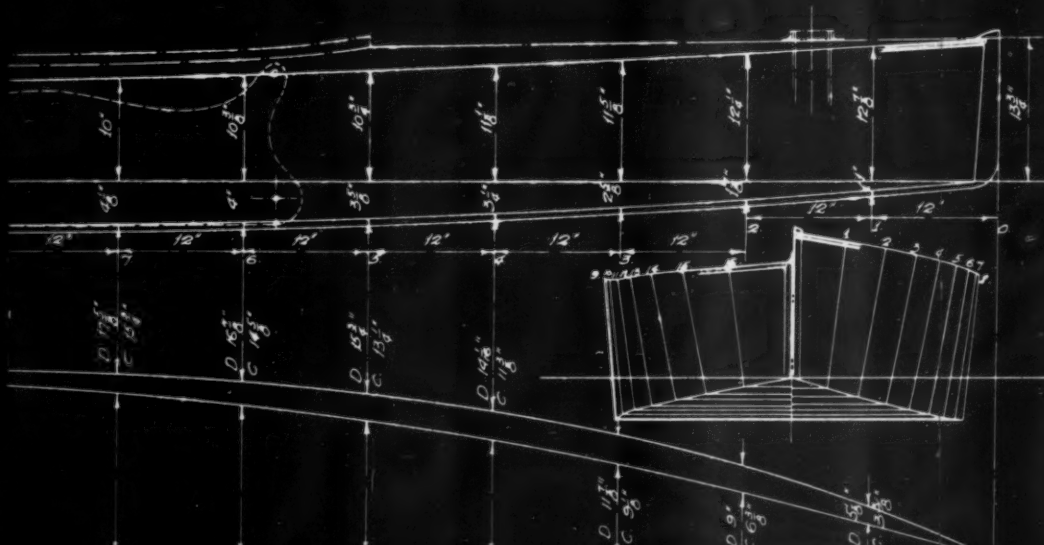
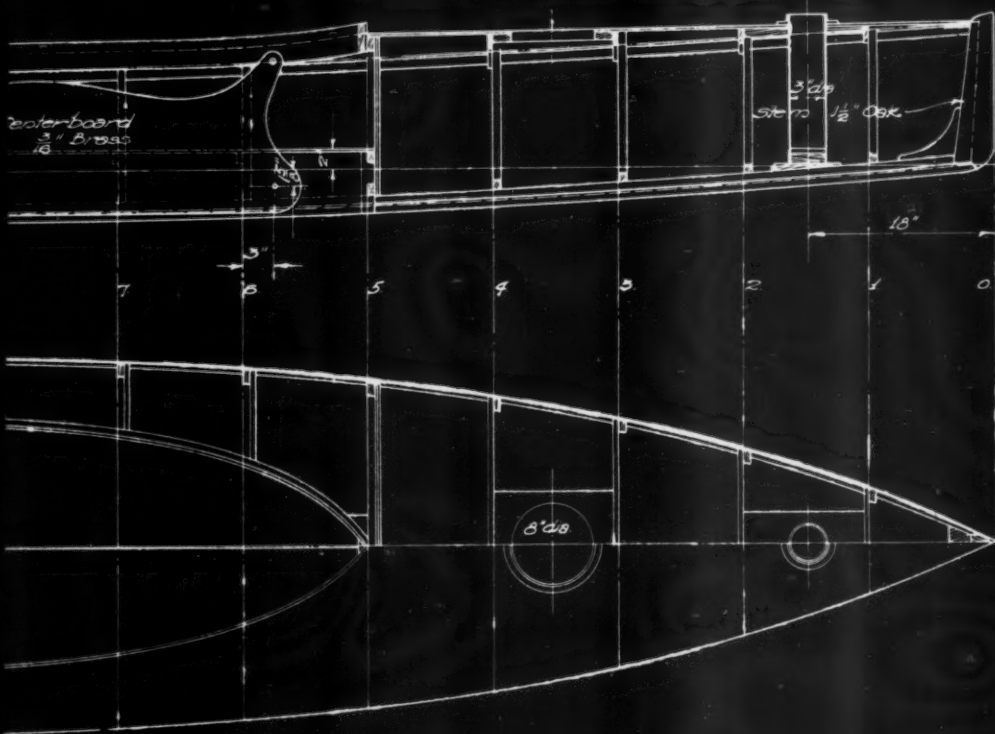
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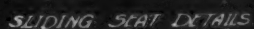
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SCALE - 3/4"

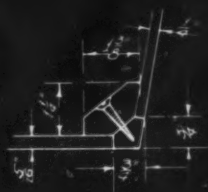


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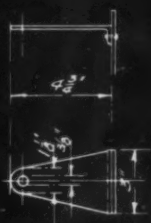
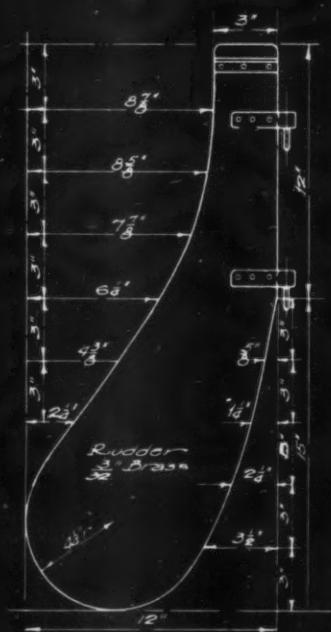
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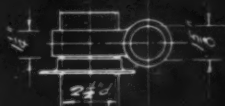
MOTOR BOATING



CHINE DETAIL



Rudder Arm
1/4" Brass.



SKINNEY,

A 17-foot Sailing Canoe

A Clever Design for an Attractive and Popular Style of Sailing Craft Which Will Furnish Thrilling Sport, Designed Especially for MoToR BoatinG

By C. A. NEDWIDEK

SOMETHING a little different in the Build A Boat Series is a sailing canoe of the skiff type. No doubt many of the readers of MoToR BoatinG have at one time or other had the desire to build and own a sailing canoe, to build a boat of this type on the round bottom style involves quite a bit of boat building experience while to build one as shown on the accompanying plans should be relatively easy.

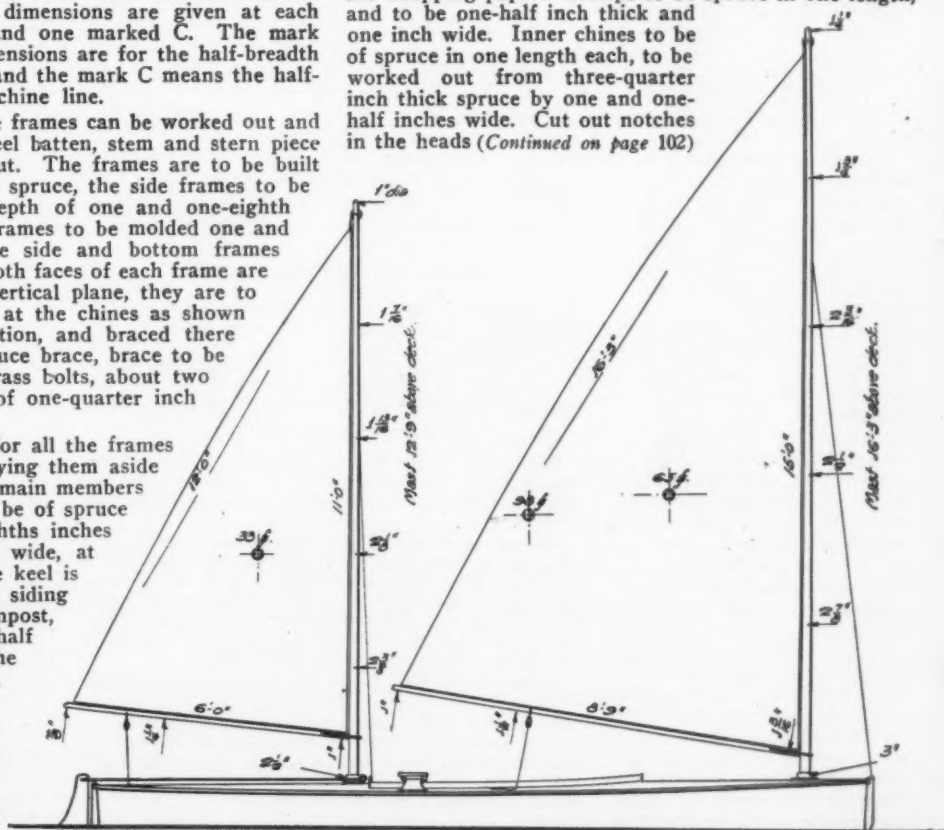
With this boat as well as with any other boat regardless of type or size, the first thing to do before any construction can be started, is to lay the line drawing down full size. Sheets of building paper or large sheets of heavy wrapping paper can be used for this purpose. The drawing of the lines gives all the necessary dimensions for each frame. You will note on the half-breadth plan of the lines, two dimensions are given at each frame, one marked D and one marked C. The mark D means that these dimensions are for the half-breadth widths of the deck line and the mark C means the half-breadth widths of the chine line.

When this is done, the frames can be worked out and assembled. The keel, keel batten, stem and stern piece should also be gotten out. The frames are to be built up of three-quarter inch spruce, the side frames to be molded or to have a depth of one and one-eighth inches and the bottom frames to be molded one and three-eighths inches, the side and bottom frames are to set flush, that is both faces of each frame are to be set in the same vertical plane, they are to be joined in the corner at the chines as shown on the construction section, and braced there with a one-half inch spruce brace, brace to be bolted to frames with brass bolts, about two bolts in each member, of one-quarter inch diameter.

Get out the material for all the frames and assemble them. Laying them aside until the keel and other main members are out. The keel is to be of spruce in one length, seven-eighths inches thick, and three inches wide, at bow and stern the inside keel is to be tapered in to the siding of the stem and sternpost, namely one and one-half inches. Cut a slot in the keel for the centerboard, slot to be four feet one and one-half inches long, and to three-eighths inches wide, location of slot is given on the construction plan. The stem and sternpost are to be of oak, sided one and one-

half inches, stem to be molded two and one-half inches at head and four inches at heel, the sternpost molded two inches at head and three inches at heel. The keel batten is to butt up against the stem and sternpost, and to be fastened to them with knees and brass bolts about one-quarter inch in diameter.

On the center line of each bottom frame mark out and cut a notch to receive the keel batten. Having done this we now can set up the frames on the keel batten in their respective places taking very good care that the frames are trued up, otherwise a twisted boat will result. Get out the material for the clamps and inner chines, the bevel for the chines can be taken from the full sized section that you have drawn on the wrapping paper. Clamps to be spruce in one length, and to be one-half inch thick and one inch wide. Inner chines to be of spruce in one length each, to be worked out from three-quarter inch thick spruce by one and one-half inches wide. Cut out notches in the heads (Continued on page 102)



Outboard profile of the 17-foot sailing canoe Skinney

SMALL MOTOR BOATS

Their Care, Construction and Equipment

A Monthly Prize Contest Conducted by Motor Boatmen

Questions Submitted for the March Prize Contest

1. How can you arrange a simple system of hot water heating not connected with the engine and using as a means of heat kerosene, gasoline or liquified gas?

(Submitted by G. E. R., New York, N. Y.)

2. Show how to build a winter shed for two 45 foot cruisers, constructed as economically as possible of wood and roofing-paper, and permitting removal of boats without dismantling in the Spring.

(Submitted by E. A. J., New York, N. Y.)

How Boat Fastenings Compare

Many Types of Nails, Rivets, Screws, and Other Materials Used in Boat Construction Each with Advantages for a Particular Form of Work

Answers to the Following Question Published in the November Issue

"What are the advantages and disadvantages of the different kinds of fastenings, viz.—copper and galvanized nails, rivets, screws, etc.—and how would you apply them to the best advantage?"

Motor Boat Fastenings

(The Prize-Winning Answer)

ON the fastenings depends the life of the boat. No matter how good or how poor the materials may be, if not properly fastened the boat will not be as strong as a boat should be and after a few years the fastenings will begin to loosen, the boat leaks, requires almost constant repairs and is an old boat in condition long before it is old in years. Good firm fastenings are not expensive or hard to use. In fact the cheaper fastening is the most economical in first cost, installation and period of usefulness. Can you find a better argument for galvanized fastenings for motor boats?

For the heavier parts of the construction galvanized carriage bolts or machine bolts, or galvanized rods riveted both ends over galvanized washers are standard methods in all but light fast hulls. For fastening the frames, clamps, etc., galvanized nails are universally used and they outlast the wood that they fasten.

For many years copper nails driven through holes bored in the planking and frame and the head set in a countersunk hole, bored in the planking; the inner end cut off and riveted over a copper burr, was thought to be the best possible construction. Galvanized nails should not be riveted as the riveting breaks the galvanizing and leaves the iron subject to rusting and corrosion where it has been riveted. Riveting over burrs is a slow job, requiring a man outside to bore for and drive the nail and then hold on while the inside man cuts off and rivets the nail. Properly applied, the copper nail riveted over a copper burr is a good fastening as long as the copper lasts, but if the nail is buckled in the wood the fastening is of little if any

value, as a strain will straighten the kink in the nail and then the plank is as loose as if there were no fastening at all.

Copper or galvanized boat nails clinched or not, held a good place in the fastening scale, but copper has lost out on the grounds that unless of large size copper nails are very expensive and practically useless for they are weak at the point and usually break off when clinched or nearly break without showing the fracture. Copper nails ductile enough to clinch without breaking would be too soft to withstand any strain. For frames over 1¼ inches thick, the galvanized boat nail clinched or driven makes a good fastening that will stay good. The nails are bored for the same as when riveted except that the hole is not extended clear through the frame and the nail is clinched against an iron held on the frame. This method may or may not require a helper. The galvanized nail driven all but through has the advantage in that this method leaves the inside of the frames smooth and free from splinters and nail marks.

Brass and galvanized screws have their respective advantages. You wouldn't fasten a batten seam hydroplane with galvanized screws for all they are stronger. In this type of construction the heads are smoothed off flush and not countersunk. For heavier construction, galvanized screws are decidedly better on account of their greater strength and durability. Screw fastenings are always bored for and the heads countersunk. Often the countersinking is puttied but wood plugs set with paint or varnish and finished off smooth are much better. A galvanized screw will usually pull through the planking before it will pull out of the frame, and even in salt water, if of good quality, will outlast the boat. Brass screws are sometimes made of inferior metal and occasionally of low tensile strength. These are liable to

Rules for the Prize Contest

READERS are urged to consider the above questions for the February issue, and send answers to them to the Editor, MoToR Boating, 119 West 40th Street, New York, N. Y. Answers should be (a) in our hands on or before **January 25**, (b) about 500 words long, (c) written on one side of the paper only, (d) accompanied by the sender's name and address.

The names will be withheld and initials used.

QUESTIONS for the next contest must reach us on or before **January 15**. The editor reserves the right to make such changes and corrections in the accepted answers as he may deem necessary.

The prizes are: For each of the best answers to the questions above, any article or articles sold by an advertiser advertising in the current issue of MoToR Boating of which the advertised price does not exceed \$25, or a credit of \$25 on any article which sells for more than that amount. There are two prizes—one for each question—but a contestant need send in an answer to only one if he does not care to answer both.

For answers we print that do not win a prize we pay space rates.

For each of the questions selected for use in the following month's contest, any article or articles sold by an advertiser advertising in this issue of MoToR Boating of which the advertised price does not exceed \$5, or a credit of \$5 on any article which sells for more than that amount.

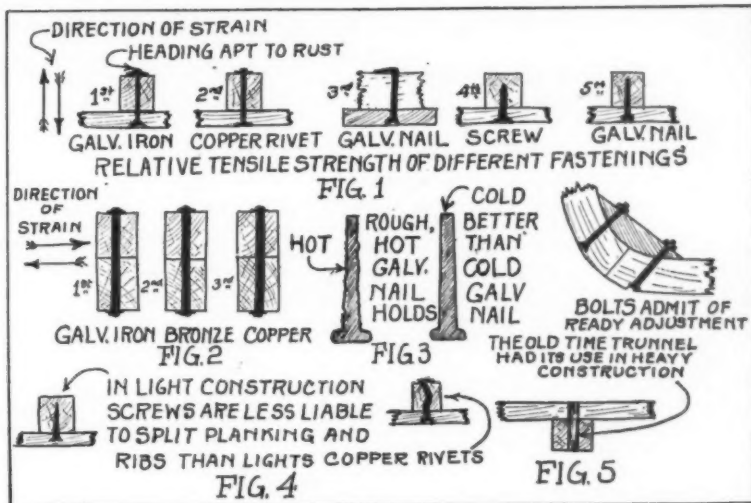
All details connected with the ordering of the prizes selected by the winners must be handled by us. The winners should be particular to specify from which advertisers they desire to have their prizes ordered.

either twist off while being driven or become weakened to such an extent that they are liable to let go at any time. Brass screws are three or four times more expensive and in many cases, particularly if carelessly driven, no better than galvanized iron.

Where galvanized nails or screws are referred to in this article, the wrought iron nail, galvanized by the hot dipping process, is meant. This method is now often referred to as zinc coating to distinguish it from the process of sheradizing, or electroplating with zinc. Mix a handful of hot dipped and plated nails and throw them out in the rain for a test. One shower and the plated nail is covered with rusty spots while after several rains the hot dipped nail shows not a sign of rust. The same applies to screws also except that the screws are not made of wrought iron.

It has been repeatedly demonstrated that a galvanized nail driven in oak frames has a greater holding power than a copper nail riveted over a burr. The tannin in oak has a certain action on the zinc of the galvanizing which cements the nail firmly in the wood, giving it a holding power greater than the strength of the copper. This action does not appear with a copper nail. Salt water has less effect on a galvanized nail or screw than on copper or brass. In some hulls brass screws have been known to turn to spongy copper in a few months. Even in water only slight salt, brass screws have been found to lose much of their strength in a short time, so much so that they can not be backed out without breaking.

Where a nice smooth job of plugging is desired, bore the countersinking with a Forstner bit and use a twist drill with a stop if it is not desired to bore clear through the frame. The Forstner bit cuts a clean round hole that can not be equalled with an auger or twist drill. Where the drill used for boring the frames is long enough, bore through a section of a broom handle and leave it on the drill to prevent the chuck from marring the sides of the countersinking. This also forms a depth gauge where it is not desired to bore clear through. Where the holes are to be puttied a combination gimlet



Sketch by J. E. M. which shows some of the faults of fastenings are due to carelessness on the part of the workman

bit and countersink is a time saver.

For boring small holes use a hand drill or breast drill and save much time. The speed is about three to one. Don't blister your hands. Use the screwdriver in a brace and get a bit stock screwdriver made to fit the size screw that is being used and it will not slip out of the slot as readily as one that does not fit. You can work easier and faster with the screwdriver in a brace and do better work. Of course, electric or air tools have the advantage over hand operated tools but it is not likely that the amateur builder will be working in a shop equipped with these tools or will care to buy them for the one job. W. B. M., Newburgh, N. Y.

Select Fastenings to Suit Work

THERE is no boat fastening which is supreme under all conditions. Copper has many advantages and its use is universal in the better type of small craft, but its cost is prohibitive in the construction of the big fellows.

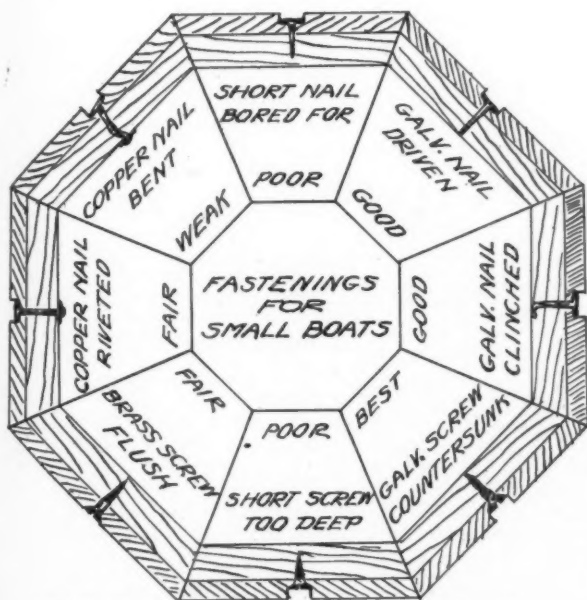
Its tensile strength (lengthwise) and its shearing strength (sidewise) are both secondary to either iron or bronze, and the ease with which it can be worked makes it desirable.

If galvanized fastenings are stronger than copper or bronze, they are likewise liable to be affected by the action of water unless of first quality. This matter of quality in galvanizing is quite important as poor galvanizing is as good as no protection at all.

Copper riveted planking is synonymous with first class construction and long life. One defect in riveted galvanized rods used in the building up of the deadwood, for instance, is the rust which forms on the exposed surface of the rod where it is sawed off. If the builder allows for a generous heading on such rods, the inroads of rust will not be so soon apparent as when small riveting and bad fitting washers are used.

Regardless of the material used, from a standpoint of strength, the through fastening is superior to any other, particularly when the overall length of the fastening is not very great. The movements which take place in a hull due to the vibration of the engine, the buffeting of waves, the contacts with floats, cause anything but the through fastening to loosen to a point of letting go entirely sooner than if through fastenings were used.

Comparing the relative qualities of hot process galvanizing and cold galvanizing, it can readily be seen (Fig. 3) that the holding power of the rough surface produced by the hot galvanizing process tends to give it an advantage over the smooth cold galvanized fastening, but all things considered, the hot galvanized fastening will resist the action of (Continued on page 138)



W. B. M. in an original sketch shows his impressions of good and bad boat fastenings

The Problem of a Dirty Tank

Useful Suggestions from Readers Which Show How to Remove Dirt and Sediment from Fuel Tanks Without Removing Them from the Hull

Answers to the Following Question Published in the November Issue

"What method have you found satisfactory for cleaning sediment from the fuel tanks without removing them from the boat?"

Syphon Does the Trick

(The Prize-Winning Answer)

CLEANING sediment from stationary fuel tanks offers practical difficulties. The problem is largely a matter of working up side down.

Where a panel or two can be conveniently removed, the tank dismounted, and handled in a workable way, any number of common methods will of course give satisfactory results. But frequently we come in contact with the built in type, which in some instances, are perhaps as easily removed as the stem or keel.

For interior accessibility, fuel tanks fall into two general classes; viz: the plain single chamber, and the splash compartment type. The former presents the least difficulty and a reasonably good cleaning job can usually be accomplished. The partitions placed in the latter type of tank presents a less satisfactory working condition. However, it must be remembered that the partitions, which may preclude all manual operations, have a redeeming feature. They retard the circulation of sediment somewhat, and have a tendency to hold it divided in several different places.

The structure of fuel tank sediment is generally made up of fibrous matter, small gritty particles, rust scale, and a muddy sludge; the latter occurring more often in galvanized tanks than those of copper, probably due to a slight electrolytic action between the zinc coating and copper and brass fittings.

An educated solvent which would obligingly attack all foreign matter to the exclusion of tank and fittings might suggest itself as an ideal expedient; but in the absence of this, and in the light of practice and experience, we must resort to mechanical means.

Owing to the fact that nearly all fuel tanks have a small area drain or outlet, ordinary flushing is ineffective, and comparatively little sediment will find its way out by repeated draining.

The one practical method which has done the trick many times, is the bottom syphon method; it is both simple and effective, requiring only a few inches of gas in the tank and ordinary implements.

A sufficient length of $\frac{1}{2}$ inch rubber tubing is fastened to the end of a stick of wood tapered chisel form on the bottom end, care being taken not to crush the tubing enough to reduce its diameter; the tubing ends $\frac{1}{2}$ inch from the end of the stick as shown in detail in Fig. 2; the stick is used as a guide for the tube and a scraper which disengages and agitates all sediment with which it comes in contact, and it will be found that with the syphon working with the lower or outlet end 15 inches below the tank bottom level, as shown in Fig. 1, all free matter will rapidly move and find its way, into the end

of the tubing for a radius of about 3 inches. Should the drop be less than 15 inches of course the suction velocity is diminished and the cleaning radius will be correspondingly less.

As the level drops too low in the tank, the same gas may be used over again after straining.

The syphon is easily started by looping the tubing with both ends together on a level pouring gas in one end until it reaches the other. The stick must then be quickly thrust into the tank and the other end lowered at the same time to the drain receptacle. This operation is repeated until the gas comes clear, which indicates a fairly clean tank provided the scraper and tube has covered the entire surface.

Should the filler opening be too small to permit angle enough to reach the whole area, a length of stiff wire may be substituted which can be bent to a suitable curve; in this case the end should be shaped as nearly the form of the stick as possible to provide an effective scraping end.

The compartments in tanks provided with partitions, may sometimes be reached over the top, under the bottom, or through holes in the partitions, with the last described attachment. In this case it becomes necessary to bend or shape the wire in various forms in order to guide the tubing where needed.

It is not advisable to use strong solutions of any kind in a stationary tank for cleaning purposes, for the reason that they cannot be thoroughly flushed out, and some traces must necessarily remain to cause serious damage or trouble later on.

Alike in all disorders, prevention is better than remedy. There are three valuable devices which should be part of every small marine fuel tank and outlet line.

First: A fine mesh brass gauze strainer suspended below the filler cap.

Second: A short stand pipe $\frac{3}{8}$ to $\frac{1}{2}$ inch high extending above the tank bottom at outlet.

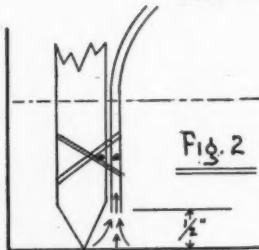
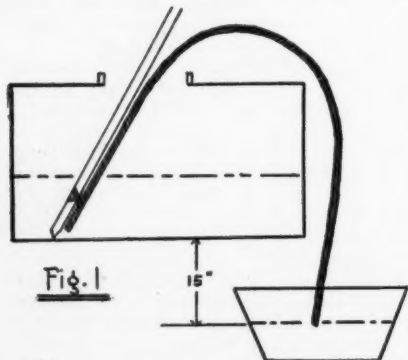
Third: Dual strainers or sediment traps mounted anywhere in the outlet line easy of access for draining and cleaning. The method of dual strainer mounting is shown in Fig. 3.

In doing any work on a fuel tank never lose sight of the important fact, that a gas tank, though drained of its contents, is as dangerous as dynamite; it still contains a perfect mixture of gas vapor and air; is highly explosive, and every precaution should be used to prevent the slightest igniting spark from any source.

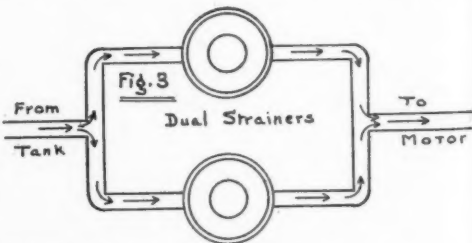
J. A. K., New Haven, Conn.

Cleaning Sediment from Tanks

WHILE the method may not work in all cases, many years ago it was accidentally discovered that the hand cleansing compounds known under various trade



Sketch by J. A. K. which shows how a syphon can be employed to remove loosened sediment



names, packed in round tins, and probably found around any grocery store, was very effective in removing rust and sediment from galvanized iron tanks, and a tinned iron tank which was rusting badly inside was permanently cured. The compound is dissolved in hot water, poured into the tank and stirred around as much as possible, then drained off and the tank flushed with hot water. Naturally, all water must be removed from the tank before re-filling with fuel.

H. H. P., Los Gatos, Calif.

Some Good Advice

REGARDLESS of the sometimes mysterious reasons for its presence, sediment in the fuel tank is ever liable to prove troublesome. Getting it out with the tank in place implies that time and facilities available are limited; yet the job can be done unless the accumulation consists of an inaccessible physical mass.

There are three important factors to a certain good method: heat, a cleansing agent, and friction. The first two are correlated, the cleansing agent being warm gasoline or washing soda that has been heated in a pail of hot water after removal from the galley stove if no better means is at hand. On a small boat the friction may be secured by rocking; on larger craft stirring action is necessary, any convenient paddle or improvised agitator in clean condition being inserted through the filler hole. The handle should be long, with a secure grip. After at least ten minutes of this fluid friction the solution may be drained off, which brings out an appreciable amount of foreign matter.

Inserting a finger, piece of blotter, or paper towel around tank drain plug or outlet pipe holes then reveals traces of remaining sediment. Another aid consists of a long, flexible strip of wood, such as a yard-stick, inserted diagonally through filler hole to scrape tank bottom. In severe cases it is best to repeat the flushing operation once or twice, allowing the gas or soda mixture to stand from 2 to 12 hours and giving one or two final hot water rinsings. The amount of gasoline or soda and water used depends on the size and shape of the tank. Usually best results are obtained when filled from half to two-thirds of capacity, the contents being stirred or splashed to practically the entire inside of the tank.

A number of chemical preparations on the market, some of them applicable to cylinder water jackets as well, are efficient fuel tank cleansers. Some motor boatmen use live steam to dispose of sediment, rigging up a boiler from a large clean can or borrowing galley or home laundry equipment. The steam is directed into the tank outlet pipe hole through tight-fitting hose having no sharp bends. With cap removed and hot water poured in, as in the simpler method, active boiling is apparent. Five or ten minutes of this treatment generally suffices. A precaution with this method is to drain the gas tank completely and allow all gas fumes at least half-a-day to evaporate, particularly if a portable open-flame stove is used on the boiler.

Occasionally sediment partially clogs the strainer around the gas tank outlet pipe while under way, producing surging or eccentric running. Alternately loosening and tightening the outlet connection thread a turn or so may give temporary relief. Gently tapping the tank bottom with a small lead mallet helps get sediment away from the outlet. Removal of drain plug or outlet connection for cleaning is risky if there is a high head of

gas in the tank, but emergencies may warrant it if line tests indicate heavy sediment on tank bottom obstructs the flow. A few large corks or plugs or the proverbial bricklayer's mitt are needed then.

Galvanized iron or pressed steel tanks over five years old often become oxidized around seams, corners, or across the entire bottom, so that a clinging, powdery mass of sediment accumulates. This will give frequent clogging trouble and can not be removed satisfactorily by anything short of a mechanical rattling or tumbling process, which would, of course, require taking the tank to a shop.

The gas tank should be rigidly mounted, fitted with a tight cap, cleaned outside every month or two, and filled with only dependable brands of gasoline if one would minimize sediment troubles arising outside of the tank.

D. McC., Cleveland, O.

Preventing Trouble from Sediment

FFUEL tanks are bound to collect sediment. Empty the fuel strainer at the carburetor and notice the accumulation of water and sediment that is drawn off. The dark particles are probably sand that has dropped into the tank when the cap was removed. The reddish brown flakes or specks are very likely small bits of rust and scale from the tank and the white or grey flakes are zinc sulphate, resulting from the corrosive action of sulphur and acid which were not all removed when the gasoline was refined. Some of this accumulation may be poured into the tank with the fuel. Careful straining, even through fine gauze strainers and chamois skin will not entirely prevent the tank from collecting sediment of a miscellaneous nature. Small particles that have passed through the strainer will collect and become attached to each other or to scale from the tank. Sulphuric acid is used in refining the gasoline and unless all traces of acid are removed the acid will attack the galvanizing on the tank, forming the white scales of zinc sulphate. The corrosive action of the acid is not confined to the

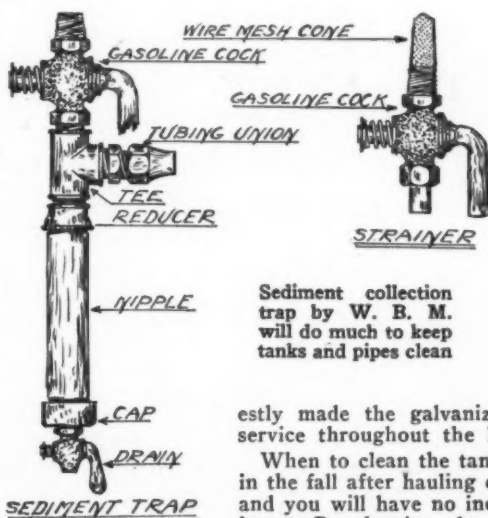
tank alone, and is often responsible for the corroded condition of metal carburetor floats and other light parts. The cheaper the gasoline the more apt it is to contain acid and sulphur. This should be a good argument in favor of the standard brands of fuel refined by reliable manufacturers.

We cannot dispute that the copper tank is least subject to corrosion and it is also the most expensive to install. The tinned seamless steel tank closely approaches the copper tank in all respects. Nevertheless, most boats have galvanized tanks and if honestly made the galvanized tank will give satisfactory service throughout the life of the boat.

When to clean the tank is an open question. If done in the fall after hauling out, there will be plenty of time and you will have no inclination to let the job go until later. By cleaning the tank while the boat is in the water, either just before hauling out or before going in commission, the rocking of the boat will serve to agitate the cleaning solution in the tank and perhaps help to procure a cleaner tank. It is desirable that the tank be not removed from the boat for cleaning as the removal of the tank necessitates the tearing out of joiner work which cannot be replaced in as good condition as before unless the work is done new. Much extra work will be avoided and a clean tank will result from the following methods:

Drain off all the fuel and let the tank stand for a week or so with the cap removed in order that some of the fumes may evaporate. DON'T use a match or a candle to light the inside

(Continued on page 146)



Sediment collection trap by W. B. M. will do much to keep tanks and pipes clean



Architect's drawing of the fine new building for the Florida Yacht Club at Venetia, Jacksonville

JACKSONVILLE *to have* Beautiful New Club House

*The Florida Yacht Club's New Building in Venetia on the
St. Johns River to Be Among the Finest in the Country*

ALTHOUGH for many years the Florida Yacht Club of Jacksonville held its prestige in the South through its social distinction rather than its yachting activities, it has, during the last few years re-awakened nautically.

The Club was founded in 1876 by William Astor, father of John Jacob Astor and during the old sailboat days, conducted many regattas. With the advent of the automobile and the building of good roads in Florida, interest in yachting lagged as it did all over the country, but the club continued its long waiting list and no debutante considered that she had properly been presented to the world unless her coming-out took place at the Club's Thanksgiving Dance.

In recent years the motor boat has opened up the hundreds of miles of St. Johns River and other inland waterway cruising as the sailboat never could do, and a considerable fleet of runabouts and cruisers were acquired by club members. This in turn created a demand for better yachting facilities. Although the old clubhouse was located on the river, there was no protected anchorage and but poor landing conveniences.

Early in the year, Commodore Raymond C. Turck

presented the club with a fine site on the point at Venetia, on the St. Johns River and handy to the residential section of the city, on condition that the club build a house that would be second to none in the country, in point of convenience and beauty. In no time, the membership subscribed sufficient funds, and W. Kenyon Drake, turned out a design that combined the skill of the architect with the yachtsman's knowledge of what yachtsmen wanted in the way of a clubhouse. The location could not be better. The house fronts on the river, flanks a protected yacht basin, has ten feet of water right up to the dock, will have a swimming pool among its other attractions and commands an unbroken view of the Bay and an incomparable course for future regattas. Construction is well underway and in the course of a few months, the visiting yachtsman will find Jacksonville the most attractive haven on the coast.

The officers and Board of Governors of the Club are: Commodore Raymond C. Turck, Vice Commodore J. Y. Wilson, Rear Commodore John L. Holmes, Secretary William R. Frazier, Treasurer W. B. Young, W. D. Jones, Jr., W. J. O'Brien, F. C. Reese, Edgar H. Rogers, James R. Stockton.

VALSPARRED . . . *of course!*



Courtesy of the Hacker Boat Company

LIKE most such aquatic "thoroughbreds," this sturdy, speedy runabout—a stock model of the Hacker Boat Company, Mt. Clemens, Mich.—is Valsparred, of course.

We say "of course," because it has long since become a habit for makers of fine watercraft of all kinds to use Valspar—a finish which they *know* will stand up.

Naturally we are gratified, though not surprised, when S. D. McCready, General Manager of the Hacker Boat Company, writes us:

"We have been using Valspar for several years, with no difficulties, on all our racing, special and stock boats. All stock boats receive five coats of Valspar and, with a reasonable amount of care, show practically no deterioration at the end of a season's use.

"The Hacker Boat Company intends to continue the use of Valspar Varnish for all 1928 boats. This certainly shows what six years of satisfaction means to this company."



Courtesy of the Hacker Boat Company

**VALENTINE'S
VALSPAR**
The Varnish That Won't Turn White

VALENTINE & COMPANY, 456 Fourth Avenue, New York

BOSTON DETROIT CHICAGO

W. P. FULLER & CO. PACIFIC COAST

INTERNATIONAL Meeting Adopts American Classes

International Motor Yachting Union at Meeting at Brussels, Belgium, Votes to Follow American Classification of Outboard Motors and Other Rules of American Power Boat Association

By Paul Bernard

American Delegate to International Motor Yachting Union

THE meeting opened November 24, 10 a.m. Its work lasted, mornings and afternoons, to Saturday evening 7.30 p.m., November 26.

After President Pierrard's opening speech, in which special reference was made to the Argentine Republic as having joined the Union during the year, and to the Y. A. A. in appreciation of its close co-operation, the minutes of the meeting held in November, 1926, were read and approved.

France moved that the Argentine Republic be elected to fill the sixth vacancy as a member of the Permanent Committee; this motion was seconded by the Y. A. A. delegate and the representative of the Yacht Club Argentino, Dr. Etche-goin, was thus enabled to take part in the work of the Committee.

The order of the day was then reverted to, and each delegate gave an account of motor boating activities in his respective country. The minutes will include a resume of each delegate's report.

The classification of the special rules for outboard motors was then considered. The secretary of the Committee was entrusted with the care of compiling such rules as decided upon by the Committee, and they will be incorporated in the minutes. The principal features are the following:

Definition of outboard motors: "A power group which can be lifted bodily by human power from the hull as one unit, and which does not transmit its power through the skin of the hull."

The International Meeting

THE action taken at the recent meeting in Brussels of the International Motor Yachting Union is another example of the friendly feeling existing between the racing men abroad and those of this country. The visits of the American and Canadian Yachtsmen to the Duke of York Races on the Thames at London, England, in 1926, and to Southampton in 1927, and the return visit of the English and Germans to the Detroit Regatta last summer, more firmly cemented together international motor boat interests than anything which has ever happened in the past.

At the Annual Meeting of the American Power Boat Association held in October, several foreign classifications of engine sizes were adopted for racing in America. Now the International Motor Yachting Union at their recent meeting decided to adopt the American classification for outboard motor sizes, as well as other American racing rules, which will go a long ways toward making international racing more popular than ever.—Editor.

Classification: With the object in view to follow as closely as possible in metric sizes the existing classification in the U. S. A., as recently maintained by the A. P. B. A., the following classes were definitely decided upon:

Class A 250 cubic centimeters to correspond to 14 cubic inches; Class B, 251 to 350 cubic centimeters to correspond to 14 to 20 cubic inches; Class C, 351 to 500 centimeters to correspond to 20 to 30 cubic inches.

These three classes will hold good for a minimum of 3 years beginning from January 1, 1928, and to be considered again and modified if necessary at the November 1929 meeting, so that no change shall be made without a previous notice of one full year.

With regard to class D above 30 in. unlimited recently adopted by the A. P. B. A., the Committee was of opinion that this new class in America was just now to be considered as a test class on which definite action by the Committee would not be justified at present.

The rules for outboard motors as definitely adopted were those of the A.P.B.A. with small alterations which will be shown on the minutes.

The compulsory use of silencers on all outboard motors was finally included in the rules; but this is one of the points on which I had most controversy from other countries. With the assistance of our British friends I finally succeeded in carrying my point, and the Committee decided that, for the year 1928, all outboard international events and world (Continued on page 156)

China is the Sine Qua Non of Yachting Hospitality

WHEN the mess pennant is flying in the halyards and the guests tumble down the hatch to brace up the innerman, what kind of china greets their eyes as they gather 'round the festive board?

Of course, with a good sea-going appetite, it may be urged that they'd enjoy food from a saucepan, but a yacht with any claim to smartness should,

to be properly equipped, have its own flags on its own china.

If that were very expensive, there would be some excuse for not having it, but the cost is very reasonable. At Ovington's you can get a dinner set for six, emblazoned with your club and yacht flags, for as little as \$100. There are other sets, at higher prices, depending upon your choice of design.

OVINGTON'S

437 Fifth Avenue, New York
212 No. Michigan Blvd., Chicago



YARD *and* SHOP

Notes of Interest to Both Owner and Manufacturer

The Next Duke of York Race

Word has been received that the 1928 race for the Duke of York International Trophy will again be held in the waters of Southampton, where the race was held last year. The question as to whether this race for the year 1929 should still be confined to the 1 1-2 liter class was left over until the International Motor Yachting Union meeting which was held in Brussels. The opinion of other countries which are likely to compete in the race will be sought before a decision is reached.

New Gray Engines

In addition to two brand new six-cylinder marine engines, the Gray Marine Motor Company are bringing out a new straight eight engine for the year 1928 which should prove to be a decidedly popular engine. Boat builders will be pleased to learn that the Gray Six-72 and the new 100 h.p. straight eight will fit on the same engine beds as the smaller Six-40 with the same shaft angle. The holding bolts on the Six-72 will be identical with the Six-40, and both engines are under 50 inches length. The new eight is under 60 inches, and of the same width as the Six-72, and the Six-40. This feature should also appeal to the manufacturers of runabouts, as any of three different power ranges can be installed in the boat without any alteration.



S. J. Matthews and William Bruns in front of the Matthews offices after negotiating the big order for forty-five 38-foot cruisers

Matthews Gets Largest Stock Cruiser Order

The largest single order for stock cruisers ever placed in this country or abroad was given a short time ago by William Bruns, President of Bruns, Kimball and Company of New York City, Matthews and Kermath distributors, to the Matthews Company, builders of the Matthews

28, the Matthews 38, and the Matthews 46 stock cruisers. The order called for forty-five Matthews 38-s all to be completed and awaiting delivery instructions by not later than March 1, 1928. It is interesting to note that this order, totalling some \$300,000 specified Kermath engines throughout, a vigorous testimonial to that particular marine power plant. The three sizes of Matthews cruisers are, ninety per cent of them, equipped with Kermath engines.

Without doubt the stock boat has been the greatest factor in popularizing motor boating and has done the most toward advancing pleasure boat building to its present position on the front line of American industries, and it is very significant that conditions are now such that the distribution of stock boats of any size or character should warrant any individual distributor's placing a single order or contract for approximately \$300,000 worth of boats at one time.

A New Kermath

Kermath announces a new 125 h.p. six cylinder high speed motor. It will be shown for the first time at the New York Motor Boat Show, this month.

This motor has been designed particularly for 26 to 30 foot runabouts, offering a speed range of from 32 to 38 miles per hour. It will also be available in the medium duty model suitable for cruisers from 35 to 40

(Continued on page 44)



A group of men in the service training school of the Evinrude Motor Company becoming thoroughly familiar with the company's methods of overhauling Evinrude engines so that they can apply these methods in their own shops

(From November Motor Boating, Page 112)

Association Outboard Records for

Commission, C.

to 20 Cub

Time	Speed
34	22.84
9	23.14
9	23.67
7	25.01
2	20.30
6	26.03
1	26.37
	25.50
	23.74
	24.35
31	21.12
27	21.30
	17.01
	17.39
	25.593
	24.258
	22.113
	20.27

Average Speed
22.777 M.P.H.

18

Class B racing records
(average) equalled by the
first 200 stock Speedsters
... brand new ... stiff ... unlimbered!

Straight from the production line, the first 200 Speedsters were required to equal or exceed 22½ m. p. h. on regular stock speed hulls before being OK'd for shipment to users.

The average of these test runs, twice timed on an accurately surveyed course, was better than 22.9 m. p. h. 95% of these motors passed their speed tests within the first 20 minutes.

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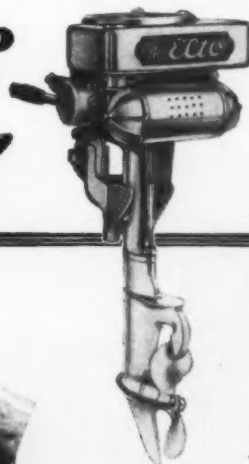
The big point is — you've got race-winning speed to start with. Full information on the Super Elto Speedster gladly sent on request. Elto Outboard Motor Company, Ole Evinrude, President, Mason Street, Dept. F, Milwaukee.

Average winning time 1927 B class races (see Nov. MOTOR BOATING) was 22.777 m.p.h.

Every Speedster, new and stiff, must prove capable of such performance before shipment!

What will they do when they're really put in racing trim!

The Super Elto Speedster



Yard and Shop

(Continued from page 42)



Namare, a fast dory built by the Sea Bright Dory Works, Long Branch, N. J., for J. P. Logan. She has a Gray 6-40, which turns a 16 inch Columbian propeller

feet in length and is designed to operate at engine speeds of 1250 r.p.m. at which speed this motor will develop 85 h.p. Used in 38 to 40 foot cruisers a speed of 12 to 14 miles per hour is now made available with this unusually fine motor. In 32 to 36 foot light cruisers and in the sea skiff type of boats it will provide a speed of 15 to 18 miles per hour. Tests have shown it to be unusually economical in gas and oil consumption.

It is a 4 $\frac{3}{4}$ inch bore by 5 $\frac{1}{2}$ inch stroke, double carbureted and double manifolded. The latter feature has successfully overcome the disadvantages of surging gas, thus preventing a too rich mixture being injected into the cylinders under varying conditions. It is the L head type motor with extra large valve areas. Its oiling system is force feed throughout. Its ignition system is the double Delco distributor type with double break-

er bars and double condensers, supplying two sets of spark plugs in each cylinder. An extra heavy crank



H. H. Vrooman gets a thrill in a Baby Whale, driven by the new Super-Elto speedster

shaft and connecting rods have been employed and it will be equipped with lynite pistons. This motor has the

150 h.p. reverse gear designed by Kermath for the extra heavy loads developed by the 150 h.p. Kermath motor. Its weight is 1100 pounds and its profile and appearance resembles the present 100 h.p. Model and its size is such that it may be installed in the same space as the Kermath 100.

This motor develops 125 h.p. at 1800 r.p.m. and is capable of 2200 r.p.m. at full load. It bids fair to be an extremely popular model designed to meet the growing demand for high horsepower, more speed and less weight.

Sea Legs

Still another tale of the sea comes to us from the ready and diverting pen of Alfred F. Loomis, the popular sailor and writer, well known as an amateur yachtsman and author of several stories of adventurous cruises on deep water.

In his half humorous way and in

his ever fresh and wholly delightful style Mr. Loomis unfolds for you the story of two boys from the middle west who come to spend the summer on the New England coast and by a stroke of rare luck are permitted to go on a long sailing cruise on the yacht *Cygnat*. The old salt in charge of the boat gives the boys a thorough grounding in the art of sailing and general seamanship. The explanations are accompanied by drawings, charts and practical maneuvers on the voyage. The narrative is rich in exciting incident, particularly when . . . but you must read it yourself as you surely will if you have ever read Loomis' "Cruise of the Hippocampus."

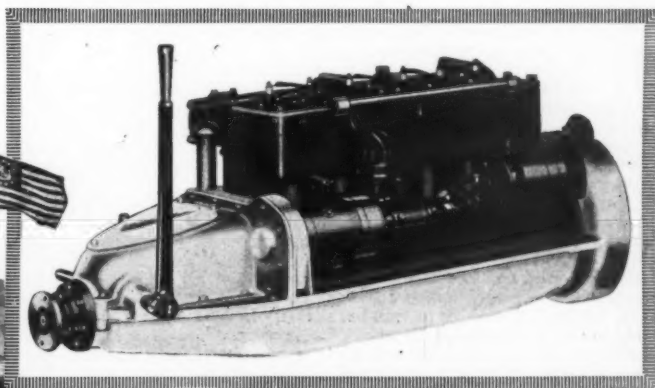
The volume is a text book and an authoritative manual on small boat handling but not until you have finished reading will you realize it and that you have shared with the boys their gradually acquired knowledge of piloting, navigation, rigging, splicing and general seamanship.

(Continued on page 66)



The elaborate railway of the Miami Beach Boat Slips which is able to handle large vessels with speed and safety

GRAY "Six-40"



New
6-72

A larger and more powerful engine, identical with the Model "Six-40" in general design and equipment. Bore, 3 3/8"; stroke, 4 5/8". Develops 72 H. P. at 3000 R. P. M. Price, \$765 with iron base; \$795 with aluminum base. Fits any Gray "Six-40" Engine bed.

GRAY NOW MAKES

Singles — Doubles — four powerful "Fours," four smooth-running "Sixes" and a remarkable new 100 H. P. "Straight Eight" at \$985 (60 in. long and under 800 lbs. weight). There is a Gray for every marine requirement, whether for medium heavy duty or high speed. Write for catalog.

A Great MOTOR Made Greater for 1928 by These Up-to-the-Minute Improvements

This popular "Six" will for 1928 be built in two types — medium compression and with the new Gray "Hycos" high compression. Other motor features changed to use changed heads. Standard fuels used.

It will have a built-in gasoline pump and strainer. No longer need the boat builder be concerned about the location of his tanks. Weight and gravity center can be kept low. It does not depend upon a battery for pressure. The carburetor bowl is always full.

Designed and built to embody these latest features of proven value:

- Shortest, lightest, lowest (above center of shaft), sturdiest "Six" in its power class.
- Big crankshaft, big bearings, long pistons.
- Lowest center of gravity.
- Pressure lubrication; no oil leaks anywhere.
- Handy oil filler — big hand hole plates.
- Accessible valve adjustments behind oil-tight plates.
- Silent adjustable Morse timing chain.
- Submerged pressure oil pump.

The Medium Compression type develops 33 H. P. at cruiser speeds. The new "Hycos" High Compression Type develops 48 H. P. at 3000 R. P. M.

Price, with Iron Base . . . \$575 Price, with Aluminum Base . . . \$595

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MIAMI, FLA., Atlantic Boat Yard Co.
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PHILADELPHIA, PA., Johnson & Towers, 128 Arch St.
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GRAY MOTORS

BUILT BY PIONEERS—ENGINEERS—LEADERS

Advertising Index will be found on page 172

Lucette Threads the Stockholm Skerries

(Continued from page 13)

time to call it a day. But we had worked hard for eleven hours and progressed only twenty miles, and here was open water where we could catch up a little. So on we went. The Major had slipped in the morning and hurt his knee and Anthony had at last succumbed to the un-English weather and had a bad attack of facial neuralgia. Altogether we were a miserable crew. But the bad must be taken with the good in cruising and we felt more cheerful three hours later when we had dropped to the level of Lake Vättern and moored to a sheltered quay near the town of Karlsborg.

All night the wind raged from the southwest and the rain poured down. In the morning we began to think that even canal-crawling can have its unfavorable aspects at a time of dirty weather. Ahead of us lay Lake Vättern, which though smaller than Vänern, offers a clear sweep of forty miles when the wind is southwest. We were to cross it eastward to Motala, a distance of fourteen miles, where the East Gotha Canal commences, and consequently we would have the wind abaft the beam.

But everybody knows what a fresh water lake can do when it is really aroused, and we anticipated this run without much pleasure. At 11:30, with fuel and stores aboard, we got under way, and two hours and a half later we reach Motala. But what a tossing we had had. Under foresail and jib alone (the main boom securely lashed to keep it from going adrift) we had romped across at a six-knot rate, Lucette rolling her side out and shipping spray amidship. She would have handled better, no doubt, under full sail, but I have a pronounced dislike to entering a strange harbor with a forty-mile breeze astern, and prefer to do it with a minimum of sail.

From Motala on our journey was a repetition of the previous day's except that the canal was wider and the water cleaner. At 9:40 P. M., after locking down eight stages, we found a mooring at Berg and after watching a steamer lock through, Paul helping the lock maidens to open the gates, we walked to Vreta Abbey to inspect the Viking ruins there.

Which weren't very much to see at midnight. The next day we dropped down to Lake Boren where we had a lovely sail with a following wind, and on and ever downward to Söderköping. Anthony's face becoming more inflamed, he spent the day below decks and P. L. had her chance to handle lines. That night, our fifth in the canal, we lay at Söderköping, where Swedish kings were once crowned, only three miles and three locks away from what would be salt water if the Baltic were salt.

All Söderköping was out in force to celebrate the national three-day Midsummer Feast, which occurs, curiously enough,

at the beginning of summer, or—if we had judged by the temperature—at the end of winter. For the first time we saw Swedes in Swedish costume roaming the streets. What interested us even more was the fact that all the stores were closed and that we would have to push on to Stockholm, a hundred miles, with our larder almost empty. There was no help for it. The day was Friday, and the stores would not open again until Monday. Securing a couple of loaves of bread after much effort, we shoved off at noon. Ahead of us lay the most difficult and dangerous navigation of the entire cruise—the myriads of rocks and islands known as the Norrköping and Stockholm Skärgården (archipelago).

The first time I looked at the chart of Norrköping Bight I let my eyes rest vacantly on the conglomeration of isles and shoals and said to myself, "We'll go outside all that." The second time I looked I saw that the route from Mem, the eastern mouth of the canal, runs through the thickest mess of menaces, and I thought, "We'll have a merry time." To add to the merriment of the occasion I blocked out a space three-quarters of an inch square corresponding to one square mile, and counted up all the islands that were distinguishable without the aid of a microscope. There were fifty in a space which, on the chart, could be more than covered by the ball of one's thumb.

Having gained this cheerful information I turned to the Coast Pilot for aid and solace. And found it replete with such sentences as the following: "There are several inner channels leading to Söderköping and other anchorages, but they should not be attempted without a pilot or local knowledge. The mainland between Valdemars Viken and Slätbaken is generally not sufficiently high to be seen over the numerous islands and skerries which front the coast, and extend, in some parts, more than twelve miles, seaward." And again, "No directions are given for the inner channels through the Stockholm archipelago, the scale of the charts being too small to navigate them without local assistance."

Not much solace from the Coast Pilot. It was like asking for bread and receiving a hundred square miles of stone.

Looking more closely at the chart I learned that for twenty-five miles we had to thread this labyrinth of skerries before coming to open water. We should then have a clear run of twenty-seven miles across Norrköping Bight to Landsort Island which, happily, is marked by an adequate lighthouse and is one of the main approaches to the Stockholm Skärgård. From there on for twenty miles we would have fairly plain sailing up the Dalarö Channel, but the last twenty-two miles to our destina-

(Continued on page 48)



George Spicer, the Kermath dealer in England arranged this fine display of American engines at the recent Motor Boat Show in London. The 150 h.p. Kermath and five other models are prominently displayed

Two Seasoned Manufacturers combine their forces to make a Great Marine Engine

THE CONTINENTAL MOTORS CORPORATION of Detroit, Mich.—the largest exclusive gasoline motor manufacturer in the world—and the FAY & BOWEN ENGINE COMPANY of Geneva, N. Y.—one of the oldest and most reliable builders of marine engines and power boats in the world—have combined their experience of more than a quarter of a century to manufacture jointly a full line of powerful six-cylinder, high-speed marine engines of an exceptionally high standard of excellence and which can be sold at moderate prices—to be known as

FAYBOW MARINE ENGINES

To Distributors Everywhere:

These new motors are now ready for immediate distribution and it is our desire to place them on sale in every boat and engine buying center of the United States and foreign countries. We shall be glad to open negotiations with responsible distributors interested in handling the FAYBOW-CONTINENTAL Line.

Full information on request

FAYBOW-CONTINENTAL DIVISION

FAY & BOWEN ENGINE CO., GENEVA, N. Y., U. S. A.

Lucette Threads the Stockholm Skerries

(Continued from page 46)

tion at Saltsjöbaden would be a repetition of the first twenty-five.

On the four parts into which this run of ninety-four miles divides itself, the unobstructed sail across Norrköping Bight to Landsort might seem the easiest. But it presented the greatest problems. The first was that we had to run out of sight of land. While this necessity does not usually strike terror to the heart of the cruising bloke it is, in a region of fogs and isolated rocks, something to think about. Generally when one has misgivings about making an accurate landfall he chooses the period of night when he can be infallibly guided by the lighted aids to navigation. But Landsort lies only four degrees south of the Arctic Circle and at the time of the summer solstice "the period of night" is merely a figure of speech. In this region it is daytime all night—and yet not sufficiently bright daylight to render objects distinguishable at a distance of more than a mile. In Northern Sweden lights of minor importance are not operative at all from June 6 to July 6 and even a major light like Landsort is illuminated only from about 10 P.M. to 2 A.M. It was therefore essential that we take departure from Söderköping at such an hour that we should bring Landsort abeam at midnight—thus allowing a couple of hours leeway for unforeseen delays.

But the really disturbing factor in this short run in the open Baltic was that our course led us through a region of abnormal magnetic variation. Here was a situation that gave cause for actual worry. Should we go ten miles wide of the locally magnetic area and when we hoped that we were past it make a guess-work change of course for Landsort? The answer to this question was no, not only because a straight course is always best, but because we had no idea what the currents should be doing to us while we were making our excursion into the unknown. But suppose the sea should prove calm and we should have to use the motor through this region of magnetic disturbance? And suppose the compass started acting up and we had no way of telling where we were headed for? And suppose we ran aground or got hopelessly lost in the islands with no food aboard, then what?

As we had no oracle aboard Lucette from whom to obtain answers to these questions we left them up in the air, shoving off from Söderköping at noon and locking through at Mem at 1:20. For a week during which we had not been able to use it to much advantage the wind had been west. Now that we had left the canal it blew from the east, a bitter spiteful wind which kept Anthony's neuralgic face below decks and chilled us to the marrow. For an hour we skirted the mainland, leaving all islands to starboard, and then we came to Stegeborg Ruin where the channel narrows and where, according to the sailing directions, warping buoys are provided because of the strength of the current. And there where we most needed visibility—rain.

But we experienced no current and picked up the buoys. After that two hours of skirting the mainland while the navigator identified every island and every point a dozen times to make sure of his position. And then the spot where the islands grow fifty to the square mile, and where by the mistaking of one island for another we should instantly run aground on the hardest granite—with no rise of tide to float us off. And at this spot the rain again poured down.

Here we drifted for the space of three or four minutes, gingerly rounding an island and trying to find a black and white buoy. Why not sail compass courses and have done with all this uncertainty? A very good question, but not at all practical. Suppose you lay out on the chart a course to a certain landmark and find that it is east, magnetic. And suppose that the distance to be run on this course is less than an eighth of a mile. Then a north or south error of fifty yards or so in the ship's position at the moment of coming on the course will change the ship's bearing from the landmark half a point south or north. And within this angle of eleven degrees from the observer's eye there may be two or three landmarks which seem identical.

Besides which we knew that there was iron ore in the rocks and we saw the dump of an iron mine on the mainland and we did the best thing possible with the compass. We forgot we had it.

But presently in this constricted area where the chart markings are so numerous that the letter j in the word *fjard* looks like a buoy, we sighted our black and white mark. "Fine business," says the Major, hand on the throttle. "Shall we go ahead?" "Not much," says the paralyzed navigator. "We're supposed also to see red buoy. Until we see them both we don't know where we're at. The Coast Pilot says that not all of the buoys are shown on the charts, and the black and white one we see may be four islands removed from the one we hope to see."

"Red buoy on the port bow," says Paul, "just around that point of land."

"Full speed ahead," says the relieved navigator. "We can't be mistaken about the location of two buoys."

So we pass through the messiest place and after a bit head northeast and hoist the foresail to get the benefit of the easterly slant. Soon the rain stops and the sun shines and we feel more comfortable. All goes well until the last half mile before we head out to the open sea and there a motor boat, piloted by the first unmannerly Swede that we have encountered in all of Sweden, purposely cuts across our bow so close that we have to change course and slow down to avoid cutting him in two.

This incident and the ensuing profanity (P. L. was below at the time) so took my mind off the business of navigating that when we did head out to sea a moment later I couldn't make head or tail of the buoyed channel. Our course was supposed to be SE $\frac{1}{2}$ E to clear all dangers, but when we came on this course it headed us directly for a reef over which the seas were breaking. In from Russia two hundred miles away the waves were rolling and as Lucette looked into them (her sails again furled) she tossed like one awakening from a week-long sleep. Trying a course half a point to the eastward we headed toward another white-capped reef. Putting us on SE $\frac{1}{2}$ E we threatened still another rocky shoal.

Finally I pulled myself together, discovered that we were a hundred yards or so to southward of the axis of the channel, and changed our position until the correct course became correct.

Now we had only to use the motor for half an hour more to gain an offing of three miles, change course back to northeast, hoist sail and make for Landsort. Time enough to worry about the area of abnormal variation when we came to it, and a good four hours before we should have to wonder about picking up our lighthouse. The hour was six in the evening, but although the day was fine there was enough sea running to make us all decide that dinner would be superfluous.

As we left the last of the shoals to port we changed course for a buoy known as Arköbaden and hoisted all sail except the topsail. Lucette, stiff little vessel that she is, heeled slightly on the starboard tack. She seemed to enjoy her metamorphosis from a motor boat to a sailboat, but she was close-hauled and we saw very soon that she didn't enjoy it enough to pass to windward of Arköbaden. As there is a four-foot spot inside this buoy we shifted to the port tack again to gain a little additional offing. For perhaps twenty minutes we sailed this tack, not pinching her too much to kill her way, but sailing as close as she would sail.

Then we tacked about and found that we were still to leeward of Arköbaden. Hmm! I thought of the westerly winds that had carried us to within a hundred miles of Stockholm and looked ahead to the westerlies that we would certainly encounter on our cruise home. And we started the motor to round the buoy.

Once past it the course eased to northward and as the wind now had a point or two of southing in it we were able to sail with sheets slightly lifted. On this point Lucette made good time and the log showed that for each ten minutes we were putting a mile behind us. At eight o'clock the Major and Paul took the deck and P. L. and I turned in. But not to sleep. I couldn't forget that two-mile stretch of windward work that we had attempted to do without the motor. We were a thousand miles from home, and this easterly wind could not be expected to last more than a day or so in June.

Presently there was an ominous noise on deck. The foresail, always more sensitive than the main, had jibed. Could the easterly have died so soon and the wind switched instantaneously to the southwest? From the Major came a note of consternation.

"The wind's shifted and I'll have to head inshore to keep from jibing."

"Impossible," I shouted, scrambling up the ladder. "It's not the wind. It's the compass. Put a screen over it and sail by the direction of the waves."

Thank heaven at least for that—that the sea was running high and that we were not becalmed on this starless night. I dropped into the cockpit and despite my own admonition to disregard the compass watched it with fascinated eyes. Though the helm was hard aport and our bow was swinging rapidly to starboard the compass remained stationary on one point—north. And then it began to oscillate through eight points. It had gone completely daft. Soon we were on the wind, and we flattened in the sheets. By the direction of the waves we must have been sailing east northeast. But the compass refused to tell us what we were doing. A few minutes before it had seemed to remain steadfastly on NE $\frac{1}{2}$ E, although all the while pulling us around until we were actually heading WNW.

There was no telling how much to leeward of our course we had run—there was a safe clearance to north and west of

(Continued on page 76)

R E L I A B I L I T Y



In Winter Playground Waters—



PRICES REDUCED

The prices of FAYBOW Marine Engines have been reduced. Now they are the lowest so far established. Our distributors will quote you the new low figures, or write us direct for quotations.

ONE GUARANTEE

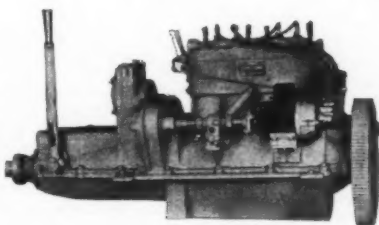
Practically every part of a FAYBOW boat and engine is made right in our own plant in Geneva, N. Y.; therefore the dependable FAY & BOWEN guarantee covers your complete FAYBOW—hull, engine and equipment.

FAYBOW Marine Engines and Power Boats are popular favorites.

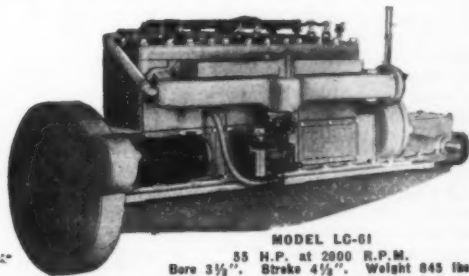
No FAYBOW Engine has ever failed to give greater satisfaction than we claimed for it. Conservatively rated, they can be relied upon in every possible emergency and all water conditions.

FAYBOW Runabouts are trim and graceful in design, beautifully built to the last detail, roomy, smooth in operation, as easy to handle as a fine motor car, and economical to run.

WRITE for complete information and prices.



LN-403 GOBEST
20 H.P. at 1600 R.P.M. Bore 3". Stroke 4". Weight 365 lbs.



MODEL LC-61
55 H.P. at 2000 R.P.M.
Bore 3 1/2". Stroke 4 1/2". Weight 845 lbs.

FAY & BOWEN ENGINE CO.

Geneva, N. Y., U. S. A.

FAYBOW

MARINE ENGINES AND POWER BOATS

Please mention MOTOR BOATING, 119 West 40th St., New York

Down Borneo's Great Barito

(Continued from page 18)

of Borneo the country is quite thickly inhabited, and all the natives seem prosperous. Their high cost of living is exactly nothing, and their sources of wealth are wild rubber, gutta percha, bees wax, coffee, rattan, and ironwood, which they harvest from the jungle and sell for cash to the Chinese traders who work up and down along the Barito river. Along this portion of the river Malay is the official language, so we were not handicapped for means of communicating with the natives as we had been further up the river in the Dyak country. We went ashore in many villages and, no matter how poor any native family happens to be, a part of the equipment of every household is a sewing machine. I take off my hat to the sales genius of the Singer people. They've created a demand for sewing machines that no half-naked Malay family can resist. Consequently, there's a Singer Sewing machine in nearly every thatched hut housing a family of the fifty millions of Dutch East Indian population. In spite of the fact that under the conditions in which these people live, they've all got sewing machines when clothing is of far less importance to them than outboard motors would be for meeting their problems of water transportation. The outboard motor manufacturer who is sufficiently aggressive to act upon this tip will find an enormous virgin field awaiting him for the sale of his product.

Our third day's run down the Barito was one of 110 miles from Boentok to Marabahan, at the mouth of the Negara river. The steamer Negara had proceeded us down the river, and we found her loading rattan and rubber biscuits at Marabahan when we arrived on board for a late dinner that evening. Lack of space prevents me from giving all the details of that day's travel—a day of cruising through an endless tropical jungle, past picturesque native villages with their usual array of floating bath houses, shooting crocodiles, and watching the antics of literally unnumbered millions of monkeys. By that time I had shot crocodiles with that erupting volcano of an elephant gun until my shoulder was almost a total wreck. My whole shoulder for several inches around where the gun stock rested had turned as black as ink, and caused me such pain that my arm was almost useless. The injury inflicted by the terrible recoil had become so painful that it effected my marksmanship. I'd missed the last half dozen crocodiles I'd shot at because I could not avoid flinching at the thought of the agony that was sure to follow a pull on the trigger. So, for the rest of the trip, I left the shooting to the two Dutchmen with their smokeless powder Mausers that sounded like a couple of pop-guns compared with that black powder Bertha of a blunderbuss that had hammered my shoulder almost to a mass of Concord grape pulp.

After spending the night on Negara at Marabahan, we struck off down the river again early next morning, on the last leg of the long journey down the Barito, and up the Martapoera river to Bandjermasin. For this portion of the run we acquired another passenger aboard De Bovre. Mrs. Hoag decided that she wanted to see a bit of the Barito from a small boat instead of from the deck of Negara which was to remain at Marabahan half the day loading rubber and rattan. So, we took her aboard with an extra bottle of beer, a few cushions, and a Calcutta parasol to offer her some protection from the searing tropical sun. There was also an extra supply of horse-beef sandwiches, and a little more Dutch coffee in the vacuum bottle of the lunch outfit. Still another important item taken aboard, was four bunches of bananas, and two dozen pineapples—the whole of which were purchased in Marabahan for the equivalent of one American dime! This fruit was taken aboard for those who cared to eat of it, and to feed the innumerable monkeys of Aap Eiland (Monkey Island), in the Barito near the mouth of the Martapoera.

In the previous paragraphs, I have mentioned nothing about the Barito valley climate of Borneo except to say that it's tropical. But, that doesn't describe it. Moreover, I cannot attempt to adequately describe it to anyone who has never experienced the most damnable, withering heat imaginable. The shade temperatures over the whole run from Poeroekthjae to Bandjermasin would have averaged about 105 degrees Fahrenheit, with humidity that would have been identically the same on the wet bulb, and the dry bulb thermometers. Sun temperatures would defy description, and the sun was usually beating down on us with all its fury except for a period of about half an hour from three to a dozen times each day when it poured down rain. When it rained, we just sat in the boat, and let the rain beat down upon us—the temperature and humidity being such that when it rained there was almost no difference anyway.

When the sun was shining, every particle of heat retaining material in the boat became so hot that no human being could touch it with the bare hand. We carried our supplies of gas-

oline in five gallon tins, and these had to be protected from the sun. Otherwise the tins could not be handled to transfer the fuel to the motor. Several times, when I carelessly left tools exposed to the sun, and found it necessary to make some trifling adjustments to the motor, the tools could not be handled until cooled in the river.

From Marabahan to the Java Sea the Barito river resembles a tremendous swamp with a swift current flowing through it, more than it does a river. This swamp-like appearance is caused by the tremendous width of the stream below Marabahan, and literally millions of tons of floating water lilies that are borne down out of the Negara river. Great masses of these water plants are to be seen floating everywhere, some times so thick that we experienced difficulty in finding open water between them. A single mass of the plants would have been sufficient to foul our propeller, while other masses sufficiently large for the crocodiles to crawl upon them and bask in the sun would have been like running De Bovre into a stone wall. These lilies drift out into the Java Sea, where we saw them some days later from the deck of a ship fully 200 miles at sea—withered and dying from contact with the salt water.

From the crude chart that Captain Ter Haar had sketched for me to show the location of Aap Eiland, we had little difficulty in finding this isolated home of more monkeys than are housed in all the zoos of Christendom. We even put-putted direct to the site of a half sunken Chinese junk, which marks a clearing in the jungle on the north side of the island where it is possible to land from a boat.

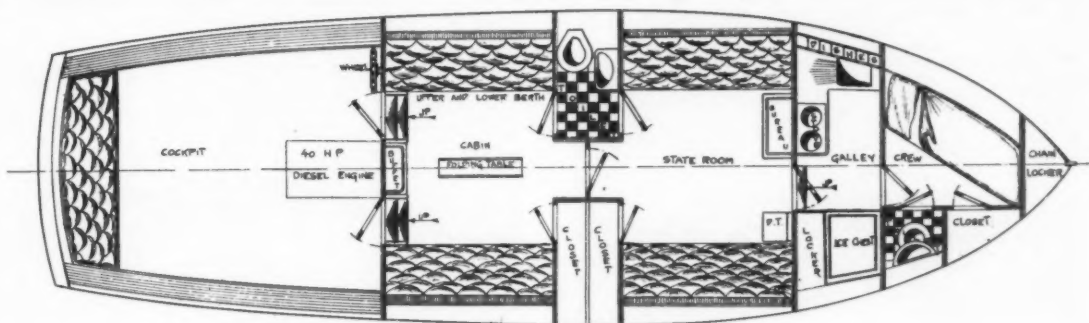
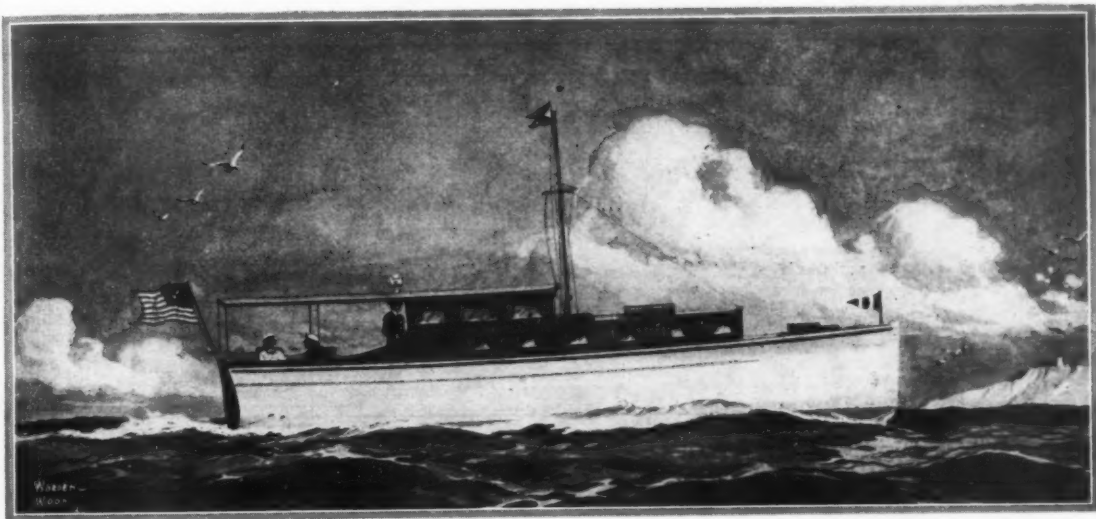
We were scarcely ashore before monkeys by the tens of thousands began to appear, chattering through the jungle overhead, and begging for food. One by one they mustered sufficient nerve to approach close enough to catch the bananas and pieces of pineapple we tossed them. Then, one big black monkey dangled down a vine by the last three inches of his tail, and took a banana from Mrs. Hoag's hand. After that they began swarming around us, tugging at the nether portions of our garments, and quarreling amongst themselves for the food we handed out. In a very few minutes, we had disposed of all our bananas and pineapples, and beat a retreat to the boat with a solid front of monkeys trailing us to the water's edge. While we were probably not in the slightest danger, it would have been decidedly indiscreet to antagonize any such number of individually harmless animals, when they might swarm upon one in such numbers as to make short shrift of a powerful man even though he might be armed like a walking arsenal.

The tameness of these wild monkeys is easily accounted for by the fact that the Mohammedan Malays regard all monkeys as sacred. They never harm a monkey. Moreover, they have a legend concerning Aap Eiland which is fortunate for the monkeys. Among the Mohammedans being without children is regarded as the height of human misfortune, and women who bear no children are considered utterly worthless. Thus, the coast Malays of southern Borneo have coined a legend to the effect that childless women become fruitful—like the monkeys, if they go to Aap Eiland to pray to Mohammed, and take an offering of fruit or other food to the monkeys. Consequently Malay women have been going to the island for years, saying their prayers, and feeding the monkeys. Naturally enough, the monkeys have learned to know a custom from which they benefit. Whenever they smell incense, or hear the mention of Mohammed or Allah, they rush to the clearing from the far corners of the island, dangling down out of the jungle with the usual line of monkey chatter which may be interpreted into English to mean—"when do we eat?"

Leaving Aap Eiland, we put-putted across the broad Barito to the south shore, and after fumbling around for certain jungle land marks that Captain Ter Haar had mentioned; we found the entrance to the little proa canal which the natives have slashed through the jungle between the Barito and the Martapoera river. This canal, which is scarcely more than wide enough to permit De Bovre to turn around, is about four feet deep, hence navigable for our tiny packet. It is only about a mile long, but it joins the Martapoera to the Barito for small boats at Bandjermasin, 14 miles above the point where the Martapoera actually joins the Barito. It thus cut 27 miles off the distance we had to travel to get into Bandjermasin, 14 miles of which would have been against the incoming tide which backs up into the Barito for many miles from the Java Sea. The natives of southern Borneo have done quite a bit of such canal building. Boats are their sole method of locomotion, and they have taken advantage of every feasible opportunity to shorten

(Continued on page 78)

And Now a Custom Built 36-FOOT DIESEL CRUISER



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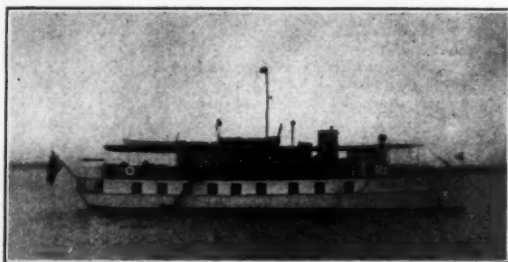
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NAVAL ARCHITECTS—MARINE INSURANCE—YACHT BROKERS
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On this page are shown a few representative yachts selected from our large lists. Should none appeal, kindly acquaint us with your requirements. Full information regarding costs to build, purchase or charter yachts of all types gladly furnished.



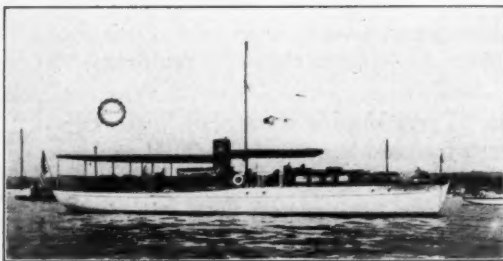
No. 4455—FOR SALE OR CHARTER—Recently built steel, twin screw power yacht, 127 feet over all. Speed up to 15 miles; two 6 cylinder 225 H.P. Winton gasoline motors. Exceptionally able and attractively furnished and equipped. Accommodations consist of Owner's large double stateroom full width of boat with connecting bath and separate toilet room; one double and three single staterooms for guests with bath and two toilet rooms. Large dining room in forward deckhouse and social hall aft. In splendid condition throughout. Ideal for Florida cruising. Cox & Stevens, 341 Madison Avenue, New York.



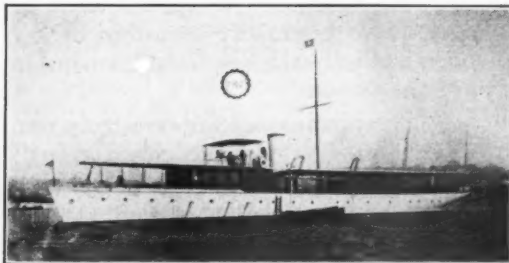
No. 4237—WINTER CHARTER—Twin-Screw 87-ft. Mathis houseboat. Winton motors. Four double staterooms, two baths and three toilet rooms. Large deckhouse containing combined dining and living room. Spacious after deck. Beautifully finished and furnished. Cox & Stevens, 341 Madison Avenue, New York City.



No. 4695—FOR SALE or CHARTER—Twin-screw 93-ft. Mathis houseboat. Speed 12 miles; two 6-cyl., 200 H. P. Winton motors. Three double, two single staterooms, 3 baths, large deckhouse containing pantry, dining and living room. Completely equipped. Price and further particulars from Cox & Stevens, 341 Madison Avenue, New York City.



No. 2428—FOR SALE—Cruising power yacht; 75 ft. long by 14 ft. 6 ins. beam. Speed up to 14 miles; 8 cyl. 100/175 H.P. "Speedway" motor, new 1922. Independent electric light plant; hot water heat. Dining saloon in sunken deckhouse forward; aft two double staterooms and bathroom. Interior finish African mahogany and white enamel. Very handsome craft. Has had very best upkeep and is in first-class condition throughout. Price attractive. Cox & Stevens, 341 Madison Avenue, New York.



No. 1466—FOR SALE—As owner has purchased larger yacht. Roomy, twin screw, 138 foot steel cruising power yacht. Speed up to 17 miles; two 300 H.P. Standard motors. Three double, one single stateroom, two baths; two deckhouses, forward one containing dining saloon and after one social hall. Equipment modern and up-to-date in all respects. Has been maintained in best possible condition and can be purchased at bargain figure. Cox & Stevens, 341 Madison Avenue, New York.

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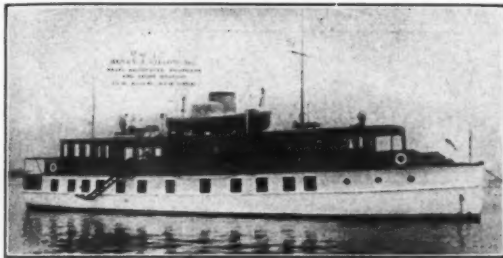
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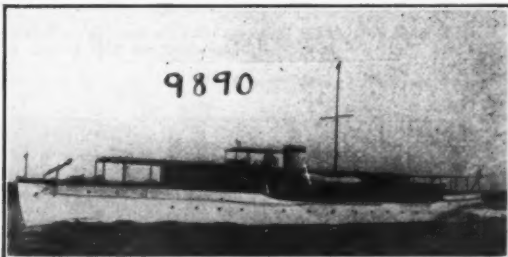
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Cable Address:
Cregis, New York
A. B. C. Code



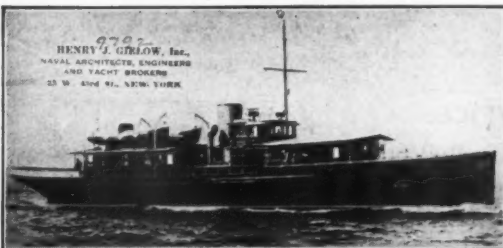
No. 9475—For Winter Charter—This attractive 85-foot twin-screw houseboat with splendid crew; two large double, two single staterooms; 3 bathrooms; deck salon 28' x 13', all teak trim. Speedway motors, speed 12-13 miles, no vibration. All modern conveniences and in excellent condition. Henry J. Gielow, Inc., 25 West 43rd Street, New York, N. Y.



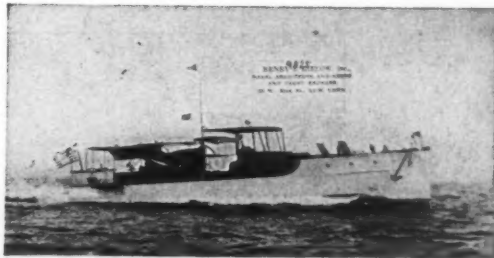
No. 9426—For Sale—Modern 98' twin-screw cruising houseboat, built 1925. Speed 12-14 miles; two Winton motors. Accommodations include two double, three single staterooms, three bathrooms, large dining room and living room on deck. Beautifully furnished and fitted. An unusual offering. Price and further particulars from Henry J. Gielow, Inc., 25 West 43rd Street, New York City.



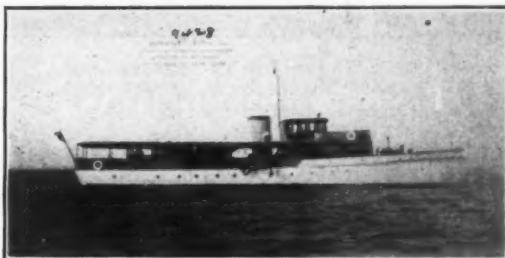
No. 9890—FOR SALE—Opportunity purchase one of best modern Lawley built Diesel powered yachts; finest condition. Fine sea boat, steady running, speed 14 miles per hour. Two deck houses, spacious deck room. Four staterooms. Two baths. Handsomely furnished and fitted. Two launches and dinghy. Henry J. Gielow, Inc., 25 W. 43rd Street.



No. 9792—Attractive Diesel offering for sale. Built 1926; speed 14-15 miles, four staterooms, three baths, two Winton Diesel motors. Very successful yacht offered as owner unable to use. Seen New York by appointment. Henry J. Gielow, Inc., 25 W. 43rd Street.



No. 9825—For Sale—Lawley 68-foot twin screw express power cruiser; speed 20-22 miles; two double staterooms; two toilet rooms; salon with two spring berths; forecabin for crew of three; excellent condition. Price and further particulars consult Henry J. Gielow, Inc., 25 West 43rd Street, New York City.



No. 9428—FOR SALE—Modern twin-screw Diesel yacht, 100 ft. with 19 ft. beam. Built 1925, best construction. Three staterooms, three baths, speed 14 miles. Electric deck equipment for anchors and boats. Teak trim. Ice plant. Offered at price lower than any other similar craft of high quality. Henry J. Gielow, Inc., 25 W. 43rd Street.



No. 8391—For Sale—Handsome twin screw steel motor yacht 135 feet length, 20 ft. beam; five staterooms, three baths, large deck space. Speed 15-18 miles; steady, able. Very complete and handsomely furnished. Lawley built. Seen New York. Opportunity obtain recent built craft; suitable any cruising. Henry J. Gielow, Inc., 25 W. 43rd St.



No. 8372—For Sale—Recently built Lawley 77-foot fast cruiser. Sterling motors; speed 21-23 miles. Excellent accommodations; large deck house containing dining salon and lounge; below are three double staterooms and extra toilet room; in excellent condition and completely found. Further details may be had from Henry J. Gielow, Inc., 25 West 43rd Street, New York City.

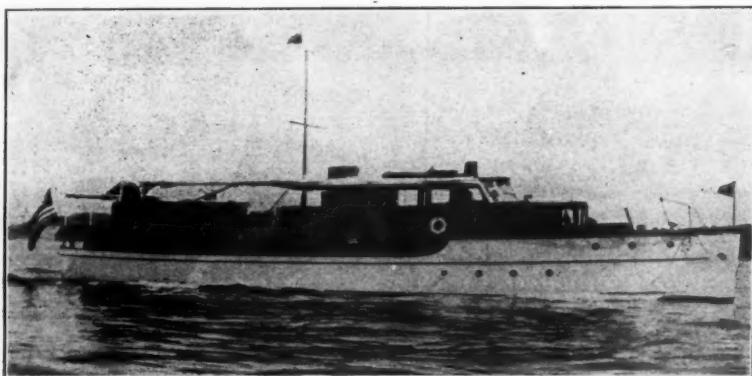


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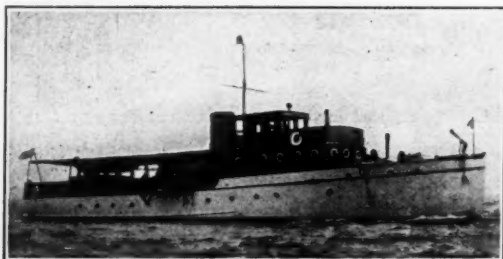
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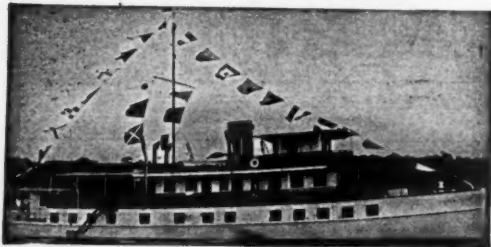
No. 8286—FOR SALE—Express Cruiser, 73' x 13' x 3'6". Three staterooms, two baths, enclosed bridge, two 200 h.p. Speedway motors. Speed 18 miles per hour.



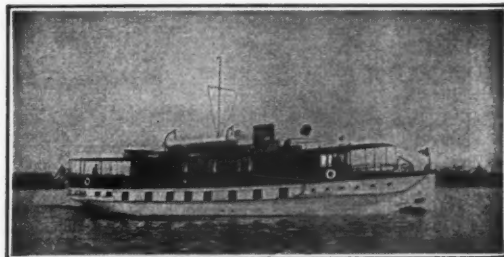
No. 9219—FOR SALE—Off Shore Cruiser. 100' over all, 19' beam, 5' draft. Powered with two 150 h.p. Winton Diesel engines; two double and two single staterooms. Deck dining salon. Of heavy construction. 1 1/2" planking, copper battened with four steel bulkheads. Exceptionally fine sea boat.



No. 9692—FOR SALE—Express Day Cruiser, 64' x 12'2" x 3'. Built 1927. Two Murray & Tregurtia 400 h.p. motors. Cruising speed, 25 miles.



No. 1941—FOR SALE or CHARTER—Houseboat, 100' x 23' x 4'. Six staterooms, four bathrooms, dining and deck sitting rooms.



No. 1999D—FOR CHARTER—Brand new 93-foot Mathis Houseboat. Five staterooms, three having two beds each, three bathrooms; large living and dining room on deck. Powered with two 150 h.p. Winton motors.

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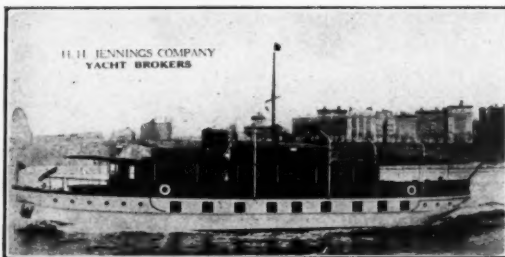
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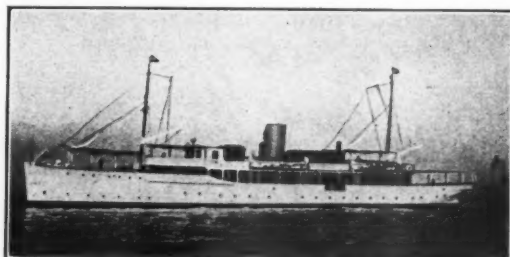
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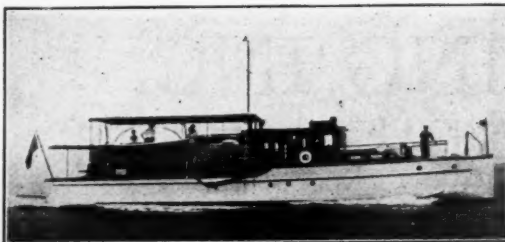
Our 30 Years' Experience and Our Knowledge of the Yachts We Offer Insure Satisfaction to Clients



No. 4678—Brand new 94 ft. Mathis houseboat. Three double and one single staterooms. Dining saloon and living room in deckhouse. Three toilets, baths, etc. Splendid crew's quarters. Two 300 H.P. Winton motors. Speed 14-15 miles. Frigidaire icebox. Hot water heat, electric plant, etc. Strictly up to date and the latest Mathis design.



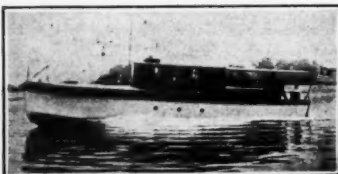
No. 2755—Twin screw Diesel yacht, 172'x26'x11'. Steel construction. Four double and two single staterooms. Four bathrooms. Splendid crew's quarters. Two 350 H.P. Winton Diesel motors. Speed 13 miles. Cruising radius 10,000 miles. Ice plant and cold storage. Wonderful seaboat. Built to cruise around the world. Will consider chartering.



No. 2800—Twin screw 66 ft. power yacht. Built 1926. Two double and two single staterooms. Dining saloon in deckhouse. Two toilets, bath, etc. Three berths and toilet for crew. Two 90-120 H.P. motors. Speed 15-17 miles. Electric lights, etc. Very attractive proposition.



No. 2659—Twin screw Diesel yacht, 100'x19'x15'. Two double staterooms, two single staterooms. Deck saloon. Three bathrooms. Two 150 H.P. Winton motors. Speed 14-16 miles. Electric generators. Frigidaire icebox. Cruising radius 3,000 miles. Heavily constructed. Splendid seaboat.



No. 2193—56 ft. twin screw express cruiser. Two double staterooms, sleeping eight persons. Large deckhouse, containing dining saloon and pilothouse. Two toilet rooms. Two berths and toilet for crew. Two 150 H.P. Sterling Dolphin motors, new 1926. Speed up to 24 miles. Deico plant, etc. Splendid shape throughout.



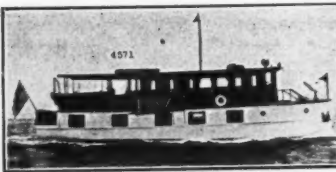
No. 2301—30 ft. twin screw power yacht. One double and two single staterooms. Upper and lower berth in after cabin. Two toilets and bath. Dining saloon in deckhouse. Captain's room and forecabin with four berths. Two 115 H.P. Speedway motors. Speed 14-15 miles. Winton electric plant, etc. Launch and dinghy. Splendid deckroom.



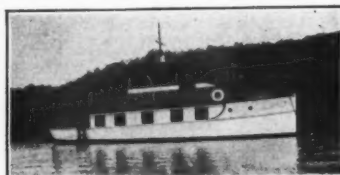
No. 2327—70 ft. twin screw power yacht. One double and two single staterooms. Two transoms and two Pullman berths in main saloon. Large deckhouse, used as living room. Bathroom with full size tub. Separate toilet room. Good crew's quarters. Two 100-150 H.P. Sterling Coast Guard motors. Speed up to 15 miles. Electric lights. Hot water heat, etc. Launch and dinghy.



No. 2858—36 ft. cruiser. Built 1925. Heavily planked. Double stateroom. Four berths in main cabin. Sleeps six persons. Toilet room. Galley. 35-70 H.P. motor. Speed 14 miles. Electric lights, etc. Splendid proposition.



No. 4571—37 ft. power houseboat. Two double and one single staterooms. Three toilet rooms, bath. Large deckhouse, containing dining and living room. Two berths and toilet for crew. Large galley. 50-60 H.P. Scripps motor. Speed 9 miles. Electric lights, etc. Attractive proposition.



No. 1400—45 ft. Mathis houseboat. Double stateroom, two berths in main saloon and one in deckhouse. Toilet and bath. Two berths and toilet for crew. 25-35 H.P. Scripps motor. Speed 9 miles. Electric lights, etc. Ideal boat for Florida waters.

Our list comprises all the available yachts for sale and charter. The above are only a few of our offerings. Write us your requirements. Send ten cents for our illustrated catalog.

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32' x 9' x 2'6"	Elco 1923	45 H.P. Elco
34' x 9' x 2'6"	Elco 1924	42 H.P. Elco
34' x 9' x 2'6"	Elco 1926	48 H.P. Elco
34' x 9' x 2'9"	Elco 1927	42 H.P. Elco
42' x 10'7" x 3'	Elco 1927	48 H.P. Elco
45' x 11'4" x 3'2½"	Elco 1923	42 H.P. Elco
54' x 13' x 3'	Elco 1922	(2) 42 H.P. Elcos
56' x 13'5" x 3'6"	Elco 1923	(2) 42 H.P. Elcos
56' x 13' x 3'6"	Elco 1925	(2) 42 H.P. Elcos
3—38' x 11' x 3'	Matthews 1925	65 H.P. Kermath
38' x 11' x 3'	Matthews 1926	65 H.P. Kermath
38' x 11' x 3'	Matthews D. C. 1927	85 H.P. Red Wing
32' x 9'6" x 3'6"	Casey 1926	25 H.P. Mianus

RAISED DECK AND BRIDGE DECK CRUISERS

28' x 8'4" x 2'	R. D. Sea Skiff	42 H.P. Frisbie
31'4" x 8'6" x 2'6"	Raised Deck	25 H.P. Locomobile
33' x 9'6" x 6'3"	Raised Deck	25 H.P. Studebaker
35' x 9'3" x 3'6"	Raised Deck	65 H.P. Kermath
36' x 8'6" x 3'	Raised Deck	18 H.P. Sterling
37'2" x 8'6" x 3'	Raised Deck	30 H.P. Sterling
38' x 9'6" x 3'	Bridge Deck	(2) 28 H.P. Masons
39' x 9'10" x 3'	Bridge Deck	40 H.P. Kermath
40' x 10' x 32"	Enc. B. D.	60 H.P. Red Wing
40' x 10½" x 3'	R. D. Sea Skiff	235 H.P. Sterling
41' x 12' x 3'6"	Raised Deck	75 H.P. Frisbie
42' x 10'6" x 3'6"	Raised Deck	15 H.P. Globe
43' x 9' x 3'6"	Bridge Deck	130 H.P. Speedway
44' x 11' x 3'6"	Bridge Deck	60 H.P. Hall Scott
45' x 11' x 3'6"	Bridge Deck	40 H.P. Sterling
46' x 10' x 3'	Enc. B. D.	60 H.P. Wisconsin
48' x 15'3" x 3'6"	Raised Deck	35 H.P. Palmer
49'10" x 10'3" x 3'6"	Bridge Deck	(2) 100 H.P. Kermaths
49'10" x 10'3" x 4'	Bridge Deck	(2) 150 H.P. Speedways
50' x 12' x 3'6"	Bridge Deck	(2) 50 H.P. Red Wings
50' x 11'6" x 3'	Bridge Deck	(2) 70 H.P. Maybacks
51' x 10'3" x 4'3"	Bridge Deck	150 H.P. Speedway
52' x 11'2" x 3'7"	Bridge Deck	32 H.P. Palmer
52' x 12'3" x 3'3"	Raised Deck	(2) 100 H.P. Hall Scotts
54' x 11'2" x 3'6"	Raised Deck	200 H.P. Van Blerck
59' x 11' x 4'6"	Bridge Deck	70 H.P. Sterling
60' x 15'4" x 3'6"	Bridge Deck	(2) 37 H.P. Standards
60' x 11'3" x 3'10"	Bridge Deck	85 H.P. Sterling
61' x 12'9" x 3'6"	Raised Deck	70 H.P. Sterling
61'5½" x 11'4" x 3'6"	Bridge Deck	160 H.P. Doman Marine
65' x 12'3" x 3'	Enc. B. D.	(2) 65 H.P. Kermaths
66' x 10'6" x 4'	Bridge Deck	(2) 100 H.P. Murray & Tregurthas
68' x 14'10" x 3'9"	Bridge Deck	(2) 180 H.P. Speedways
71' x 14' x 3'6"	Bridge Deck	(2) 50 H.P. Keystones
75'8" x 14'2" x 3'9"	Bridge Deck	(2) 180 H.P. Speedways
80' x 11'10" x 4'8"	Herreshoff B. D.	180 H.P. Speedway
85' x 14'6" x 3'9"	Bridge Deck	(2) 115 H.P. Speedways
90' x 15'3" x 4'9"	Bridge Deck	(2) 300 H.P. Sterlings
101' x 19' x 5'	Bridge Deck	(2) 125 H.P. Diesels
110' x 13' x 3'4"	Bridge Deck	(2) 150 H.P. Craigs
112'6" x 15'9" x 7'	Bridge Deck	150 H.P. Automatic

AUXILIARIES

18' x 6'2"	Marconi Sloop	(no engine)
26' x 8' x 36"	Aux. Ketch	14 H.P. Palmer
33' x 10' x 4'6"	Aux. Cutter	20 H.P. Gray
35' x 11' x 2'6"	Aux. Sloop	10 H.P. Red Wing
36'6" x 7'8½" x 5'5"	Sloop	(no engine)
37'6" x 11' x 3'11"	Aux. Schooner	10 H.P. Frisbie
38' x 10' x 3'6"	Aux. Sloop	16 H.P. Gray
40'11" x 7'11" x 5'8"	Schooner	(no engine)
40' x 12'6" x 4'	Aux. Yawl	15 H.P. Scripps
41' x 12'3" x 4'2"	Aux. Yawl	18 H.P. Palmer
43'1" x 11'6" x 6'4"	Aux. Schooner	15 H.P. Scripps
47'2" x 10' x 6'9"	Yawl	(no engine)
50' x 14' x 3'3"	Aux. Schooner	40 H.P. Stearns
52' x 13' x 6'4"	Aux. Yawl	28 H.P. Lathrop
55'8" x 14' x 8'6"	Aux. Schooner	54 H.P. Scripps
58' x 15' x 4'10"	Aux. Ketch	40 H.P. Holmes
62'2" x 14' x 8'	Aux. Schooner	65 H.P. Kermath
70' x 15'4" x 6'10"	Aux. Schooner	50 H.P. Regal
71' x 15'4" x 8'4"	Aux. Yawl	27 H.P. Standard
79'10" x 17'4" x 6'5"	Aux. Keel Schooner	200 H.P. Hall Scott
106' x 22'6" x 12'7½"	Aux. Ketch	110 H.P. Beaman
120' x 24'10" x 6'10"	Aux. Schooner	180 H.P. Krupp Diesel

EXPRESS CRUISERS

34' x 8'6" x 2'8"	Express Cruiser	150 H.P. Sterling
40' x 8' x 2'6"	Express Cruiser	150 H.P. Van Blerck
42'10" x 10' x 2'9"	Express Cruiser	(2) 200 H.P. Hall Scotts
45'11" x 9'6" x 2'10"	Express Cruiser	(2) 300 H.P. Fiats
48'6" x 9'6" x 3'3"	Express Cruiser	200 H.P. Van Blerck
50' x 10'3" x 2'10"	Express Cruiser	250 H.P. Sterling
54' x 11' x 3'3"	Express Cruiser	(2) 112 H.P. Van Blercks
56' x 12' x 3'2"	Express Cruiser	(2) 200 H.P. Hall Scotts
65'9" x 13'8" x 3'5"	Express Cruiser	(2) 180 H.P. Speedways
68' x 10' x 6'	Express Cruiser	(2) 100 H.P. Murray & Tregurthas
78' x 13'6" x 3'6"	Express Cruiser	(2) 200 H.P. Speedways
80' x 14'5½" x 4'	Express Cruiser	(2) 250 H.P. Wintons

HOUSE BOATS

38' x 10' x 3'	House Boat	24 H.P. Palmer
38' x 12' x 3'6"	House Boat	45 H.P. Cadillac
45' x 13'5" x 3'	Mathis H. B.	30 H.P. Scripps
45' x 14'6" x 3'6"	House Boat	75 H.P. Frisbie
47'9" x 16'6"	House Boat	(no engine)
50' x 14'6" x 3'3"	House Boat	60 H.P. Sterling
63'6" x 18' x 3'	House Boat	(2) 50 H.P. 20th Centuries
65' x 15'6" x 3'6"	House Boat	(2) 40 H.P. 20th Centuries
75' x 18' x 4'	House Boat	50 H.P. Standard
77' x 18'2" x 3'6"	Mathis H. B.	(2) 50 H.P. Standards
80' x 18' x 3'6"	House Boat	(2) 65 H.P. Lathrops
83' x 18' x 3'3"	Mathis H. B.	(2) 90 H.P. Standards
90' x 15'6" x 4'	House Boat	(2) 350 H.P. Wintons
91' x 17'6" x 4'	House Boat	(2) 80 H.P. Wintons
120' x 23' x 4'6"	House Boat	(2) 250 H.P. Wintons

FREDERIC P. HUMPHREYS

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Naval Architects and Yacht Brokers

NEW YORK

347 MADISON AVENUE

MURRAY HILL 2320

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No. 1233 B—For Sale. Unquestionably the handsomest cruiser that will be available this season. Length over all, 53'; beam, 13'5"; draft, 3'. Launched in 1926. A specially built job throughout by Elco—in no sense a stock cruiser. Has had the most unusual care. One single and two double staterooms; two toilets and bath. Spacious deck dining saloon with two emergency berths. Large galley and forecabin for two, with enclosed toilet. Equipment complete to the last detail. Separate lighting plant. Two powerful but economical six-cylinder Elco motors give a cruising speed of 13-14 m.p.h. The motors have always been under the expert care of the owner. Readily inspectable, and for sale at a very reasonable figure. Photos, blueprints and full details promptly mailed on request.

CRAFT OF THE BETTER TYPE

This firm has built up an enviable reputation by adhering strictly to its policy of offering only vessels of the better type. We believe that the expense of personal inspection and finding out the exact condition of every boat offered is the cheapest form of insurance for this reputation.

THE 1928 MOTOR BOAT SHOW

You will be very welcome at Booth 117 at the Motor Boat Show, January 20-28, 1928. Here we will have on display our illustrated files showing at a glance all the desirable boats for sale or charter. Furthermore, our scale models of Diesel Cruisers will prove of interest.

SPECIALISTS IN THE DESIGN AND CONSTRUCTION OF DIESEL CRAFT

HARRY W. SANFORD

YACHT BROKER

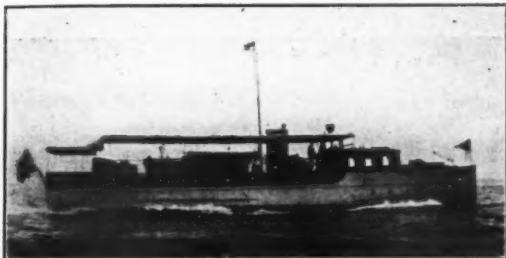
NAVAL ARCHITECTURE

501 FIFTH AVENUE (42nd St.) NEW YORK

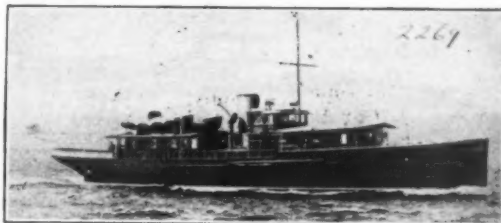
OUR MOTTO: To offer yachts which will be a pleasure for you to own and a recommendation for us to sell; to render such service as to have you feel you should like to do business with us again.

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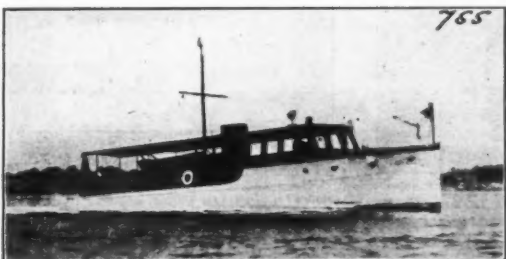
INSURANCE



No. 1785—FOR SALE—80' twin-screw cruising yacht, speed 16 miles, 3 very comfortable staterooms, bath and shower rooms. Sunken dining saloon, etc. Wonderful condition and most desirable.



No. 2269—FOR SALE—120' sea-going twin-screw Diesel yacht. Speed 15 miles. Four staterooms, three baths, etc. Built 1926. Very desirable.



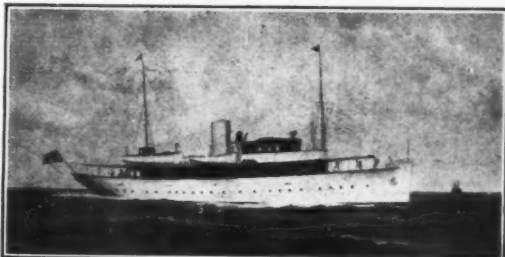
No. 755—FOR SALE—60' twin-screw express cruiser, speed 18 miles, 3 double staterooms, enclosed deck house with 2 berths, shower, etc. Excellent sea boat and in fine condition.



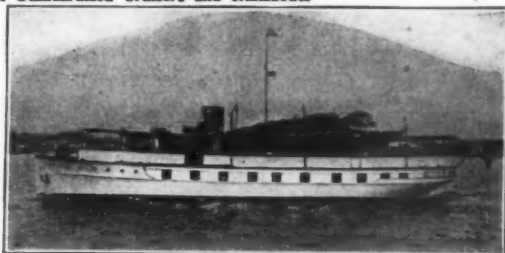
No. 2035—FOR SALE—Unusually fine 50' cruising house-yacht. 3 double staterooms, enclosed deck house, built-in bath. Heated, propane gas, etc. Most modern and beautifully built.

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WHITEHALL 1170**NAVAL ARCHITECTURE**CABLE ADDRESS:
"WINDWARD", N. Y.**MARINE INSURANCE**

Builders' Selling Agent for Various Makes of Standardized Cruisers and Runabouts

APPRAISALS

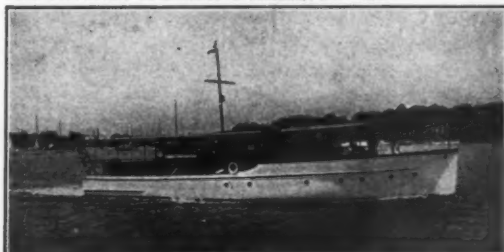
No. 7439—FOR SALE—One of the new type Diesel powered sea-going steel yachts—Twin Screw—Cruising speed 13 miles—Attractive Price—(other yachts of this type available for sale or charter) FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.



No. 8691—FOR SALE OR CHARTER—The latest of the Mathis Power House Yachts—Length 94 ft.—Powered with Winton motors—Speed up to 15 miles—(Other yachts of this type available for Florida service.) FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.



No. 7908—FOR SALE—77 ft. Twin Screw Express Power Yacht—Sterling Motors—Lawley Build—In excellent condition—Speed up to 23 miles—FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.



No. 1413—FOR SALE—65' Twin Screw Cruiser built by the Matthews Company. One of the best of their late boats. Two double staterooms, bath and deck dining saloon. Specially commended. FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.

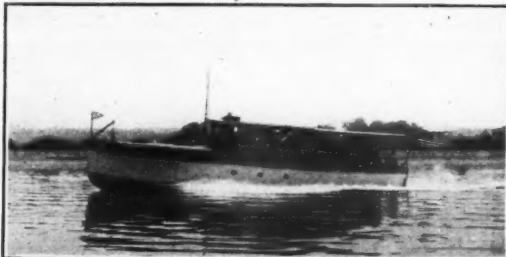
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**YACHT BROKERS
NAVAL ARCHITECTS**
HENRY C. GREBE & CO., Inc.
**MARINE INSURANCE
SURVEYING**

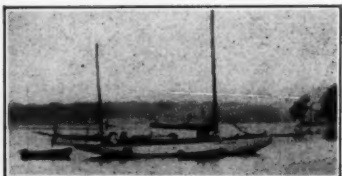
Wrigley Building: 400 NORTH MICHIGAN AVE., CHICAGO—Telephone: Superior 0806
 WE HAVE A COMPLETE LIST OF ALL STEAM AND POWER YACHTS, AUXILIARIES AND HOUSEBOATS,
 WHICH ARE FOR SALE AND CHARTER. Plans, photographs and full particulars furnished on request.



No. 1034—FOR SALE—Practically new 54' Great Lakes cruiser, in excellent condition. Has beautiful mahogany deckhouse enclosing bridge, which was added a year ago. Two 6-cyl. Sterling Dolphin motors, complete with electric starters and generators. Speed up to 23 m.p.h. Delco light plant. Forward and after cabins finished in mahogany. Sleeping accommodations for six to eight in owner's quarters. Separate crew's quarters for two. Boat most complete in every respect. Price very attractive.



No. 1013—FOR SALE—50' express cruiser, powered with two 6-cyl., 150 H.P. Sterling Dolphin motors. Speed over 30 m.p.h. Enclosed bridge deck, comfortable owner's stateroom with two built-in berths and two pullman berths and guest stateroom. Sleeps eight. Space for crew forward. Unusually attractive price. Particulars from Henry C. Grebe & Co., Inc., 400 N. Michigan Ave., Chicago, Ill.



No. 333—For Sale—Unusually fine auxiliary yawl, 55'x36'x4'6". Speedway motor in first-class condition. Boat in commission, ready to go. Particulars from Henry C. Grebe & Co., Inc., 400 N. Michigan Ave., Chicago, Ill.



No. 106—For Sale—Fine 40' power boat. One double stateroom, dining saloon, galley, two toilets. Speedway self-starting motor. Attractive price. Excellent condition. Particulars from Henry C. Grebe & Co., Inc., 400 N. Michigan Ave., Chicago, Ill.



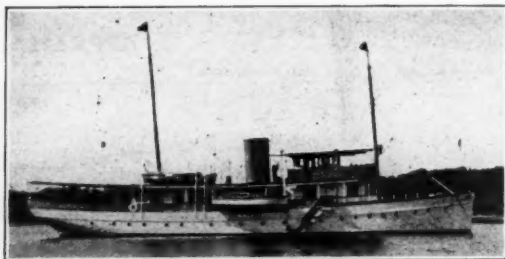
No. 2422—For Sale—One of the popular Great Lakes Sea Villas, 36'x9'11". Kermath motor. Unusually roomy cockpit, large galley and comfortable accommodations for six. Heavy construction and fine finish. Easily handled by one man. Good seaboat. Inquire Henry C. Grebe & Co., Inc., 400 N. Michigan Ave., Chicago, Ill.

WILLIAM GARDNER & CO.
Naval Architects, Marine Engineers and Yacht Brokers

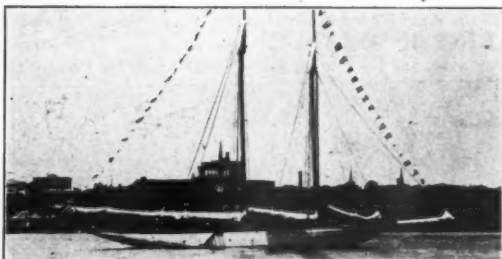
Phone: Bowling Green 4434

No. 1 BROADWAY, NEW YORK

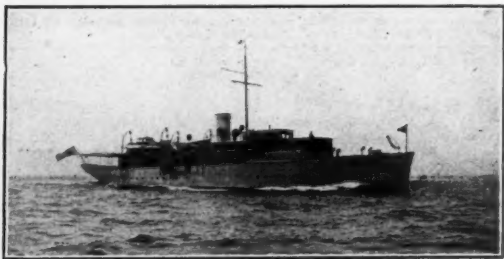
Cable Address: Yachting, N. Y.



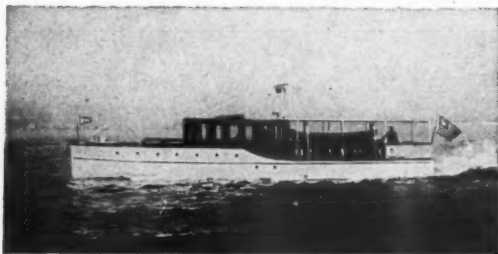
No. 2892—For Sale—Twin Screw Diesel Yacht, 108x18.5, two 6-cylinder Bessemer motors, speed 12-13 knots. Yacht practically new. Owner has purchased larger boat. Price attractive.



No. 2267—Auxiliary Schooner, Lawley built, 96x66.9x18.10x11.4, equipped with Sterling motor, 4 staterooms, etc. In good condition, and any reasonable offer considered.



No. 2557—Diesel Yacht, about 160 ft. long, built for ocean voyages, cruising radius 6,000 miles. Steel hull, two Winton Diesel engines, commodious accommodations. Plan and full details gladly furnished.



No. 2199—Enclosed bridge deck cruiser, 58 x 12, new Stearns 6 cylinder motor installed, three staterooms, etc.

A Practical Adviser Who Will Assist You To Select Your Boat

To insure your enjoyment, that it may be full and complete; safeguard your interests and avoid disappointments. Your boat should be adapted in every way to your individual requirements. You know some of these requirements—you may know them all—but you probably do not know how to best secure them.

*My services are offered you—and you
need feel no obligation.*

Years of experience in building Motor Boats and Yachts has given me a vast knowledge of the things essential to your satisfaction.

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FOUR SMART AND SENSIBLE YACHTS FOR QUICK SALE



ALMOST NEW—IN PERFECT SHAPE

No. 603 —A JOHN WELLS 30 footer, built by Consolidated. Speed 25 miles. Sleeps five. A bright, cheerful boat, beautifully furnished.



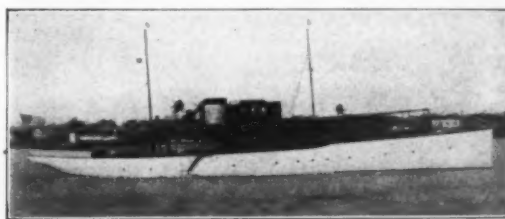
A COMFORTABLE STURDY 127 FOOTER

No. 405 —This staunch, luxurious craft bristles with comforts and conveniences. Two double, three single staterooms. 25 knot launch and power tender.



A FINE SEAWORTHY 300 H.P. DIESEL YACHT

No. 502 —Twin screw, cruising radius 2,600 miles. 100 feet long, six staterooms, wonderful deck room, attractive finish throughout.



A 100-FOOT DIESEL CRUISER

No. 714 —Note the deck room on this well-appointed Winton-powered yacht. Four staterooms, three bathrooms, sunny deck house.

These Yachts are Offered at Extremely Interesting Prices

Please mention MOTOR BOATING, 119 West 40th St., New York

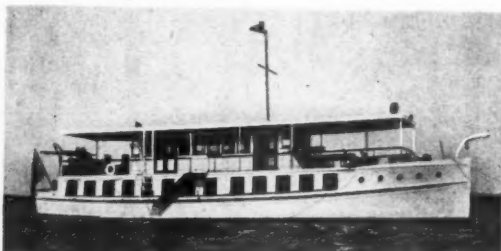
Fishing In Florida Waters

CRUISING HOUSE BOATS For Charter

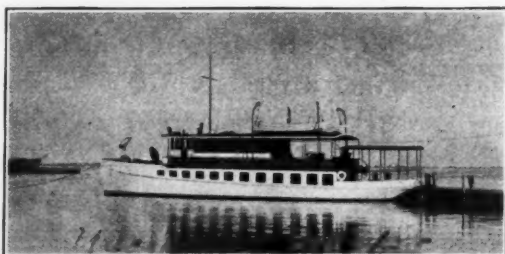
**Built and Equipped for Florida Fishing and Cruising—Now Ready to Go
Manned by Experienced Guides**



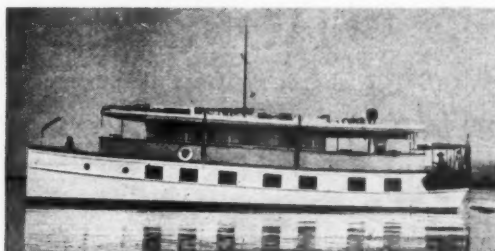
EDNA, B. 75x18. Two double state rooms, two single state rooms, three baths for the guests, hot and cold water under pressure. Large deck house, fully equipped for long trips; also one thirty ft. fishing boat included. Charter for week or month. Address Captain Robert Busby, P. O. Box 729, Miami, Fla.



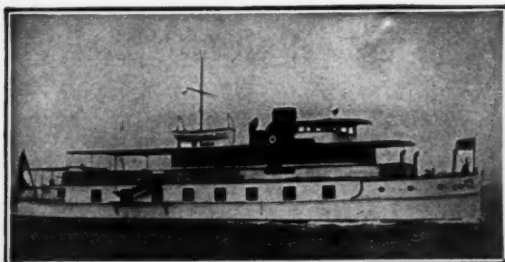
YACHT MOLLIE-O 11—Designed and equipped for Florida cruising and fishing. Four single state rooms with bath, lavatory in each room, one double stateroom with bath. One thirty foot fishing launch, more if desired. References sent on request. Alonzo W. Goodwin, Captain and guide. Address Box 434, Miami, Fla.



YACHT COMET—Seventy-seven ft. over all, seventeen ft. beam. Three single state rooms with toilet and lavatory in each. One double with a private bath. Nice deck house, also good guide boat all ready to go fishing. Address Capt. Frank J. Potter, P. O. Box 672, Miami, Fla.



YACHT SONORA—Sixty-five ft. overall, sixteen ft. beam. Three single state rooms and bath, one double state room with private bath. Large deck house fully equipped ready to go with thirty ft. guide boat. Also have two extra guide boats. Address Capt. F. A. Harrod, 1144 N. W. 29th Terrace or P. O. Box 838, Miami, Fla.

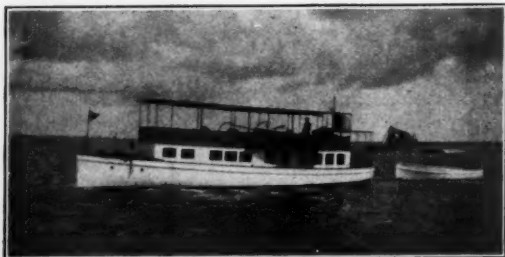


YACHT AMBASSADRES—29'x18'. Three double staterooms, two single staterooms, three bathrooms, large deckhouse with dining saloon and lounging room, one large guide boat. Address Yacht Ambassadors, P. O. Box 150, Miami, Fla.

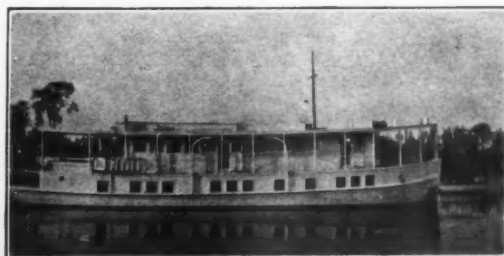
We have several more excellent boats for charter. If you have a particular type of craft in mind we can help procure it for you.

F. A. HARROD

1144 N.W. 29th Terrace
or P. O. Box 838, Miami, Florida



CRUISER DOROTHY—For Charter in Florida waters. 55' long, 2 staterooms and bath, dining saloon and large upper deck, boat for fishing. Address and Phone 23894. Owner and Capt. R. H. Denny, 267 S.W. 9th St., Miami, Fla.



YACHT SCURRY—75'x16'6". Two double staterooms, two single staterooms, real beds with springs, two baths, large deckhouse, dining saloon on deck, one 30' guide boat. More if desired. All ready to go. Address Fred. G. Sasser, Capt. and Owner, 327 N.W. 10th Ave., Miami, Fla.

THE MOTOR BOATING MARKET PLACE

The rate for "For Sale" and "Want" advertisements is 8 cents per word, minimum \$2.00. If an illustration is used, the charge is as follows, which includes the making of the cut:

Cut one inch deep, two inches wide.....	\$9
Cut 1 1/4 inches deep, three inches wide.....	12
Cut 2 3/4 inches deep, four inches wide.....	\$20
Cut 2 3/4 inches deep, six inches wide.....	\$25

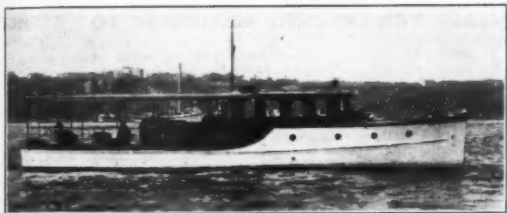
Classified advertisements set entirely in small light face type. No extra charge for capitals. Bold face type used at display rate, \$12 per inch, single column.

New advertisements can be accepted up to twelfth of month for following issues.

Opportunities
for the
Motor Boatman

Before you buy or before you sell examine the exceptional buying and selling opportunities under this heading. They comprise the best offers of the month. Please mention MoToR Boating.

MoToR Boating, 119 West 40th St., New York

Bargain
for Quick Buyer

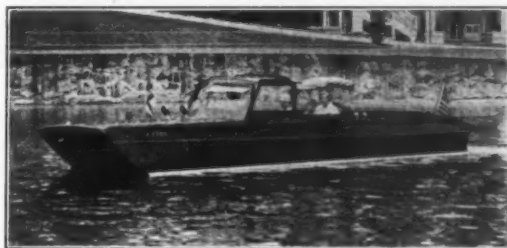
Raised Deck Cruiser

50' x 10' x 3'6"

THIS beautiful cruiser built in 1919 by Thomas Muncy & Son, Bay Shore, Long Island, is an excellent example of superb craftsmanship. It is in good condition and has two staterooms and two toilets. The power plant, a four-cylinder, four-cycle, 5" x 6" Palmer, recently overhauled, gives the boat a speed of 12 M. P. H. Equipment includes: Electric refrigerator, Edison batteries, and Homelite Electric Lighting Plant. Boat may be seen and inspected at City Island, N. Y. Price, \$5,500.

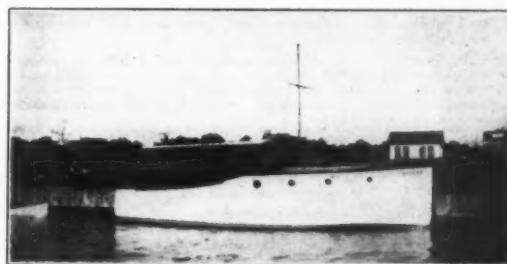
For Further Information Address:

HOWARD W. LYON
HOTEL BARCLAY
532 Lexington Avenue at 48th Street
NEW YORK, N. Y.



SEA SLED FOR SALE

Sedan type, 28 ft. long, 200-H.P. Hall-Scott motor. Speed 38 miles per hour. Owner has just had sled completely gone over and entirely redelivered. New Delco system, new batteries and all new equipment. Boat is like new and would be ideal for any one desiring to take a speed boat South. Owner has purchased another boat. Kindly make offer. Max R. Marston, 1523 Walnut St., Philadelphia, Pa.



FOR SALE—New Cabin Cruiser 30'x8'6", motor run 20 hours. All oak frame, cedar planking, mahogany trimmings, 90 horse, 6 cylinder Van Blerck, fully equipped, 4 berths, green plush upholstery in cabin. Toilet and galley, complete electric lights throughout. Cockpit 12'x8'6". Solid bronze fittings, side curtains for cockpit. Owner building larger boat. Price \$4000.00. TERMS. Address Box 64, Motorboating.

Will sell substantial 16-foot flat bottom motor skiff. An able little boat powered with an Evinrude 5-h.p. inboard engine with reverse gear. Boat is beamy and steady, fine for children. Built from design of Sue in MoToR BoatingG, August, 1925. For particulars write F. W. Horenburger, 4263 Byron Ave., Bronx, N. Y.

FOR SALE—2 cyl. 2 cycle 6 h.p. Lockwood Ash Marine engine with Joe's Reverse Gear. New Last Season and run less than 100 hours. Excellent condition \$65. Box 589, Smyrna, Dela.

MARINE MOTORS—4 cylinder, 4 cycle Doman, 7x9, with starter and gear. \$400.00. 3 cylinder, 4 cycle Doman 4x5, \$75.00. 1 cylinder, 2 cycle, 3 1/2x3 1/2, with reversible propeller. \$35.00. All in good condition. Henry Michels, Fond du Lac, Wis.

BARGAIN—Model "V" 25-35 h.p. Electric Starting Generator, Distributor, Battery, Propeller, guaranteed perfect condition throughout. Price \$300.00. Gray Marine Motor Company, Detroit, Michigan.

FOR SALE—Pair 6 cyl. latest model Van Blercks motors, each 150 h.p. Completely rebuilt, and like NEW. No reasonable offer refused. W. L. Masters & Co., 804 N. Clark St., Chicago, Ill.

WANTED: Engineer and Draughtsman experienced in small motor boat design and construction to take charge of our department devoted to small boat designing for use with outboard motors. State fully qualification and experience. Applications treated confidentially. JOHNSON MOTOR COMPANY, Waukegan, Ill.

"FLEETWING 38," new this Season, perfect, powered with new No. 254 Red Seal Continental Marine Motor with reduction gear, Speed 15-16 miles. Owner negotiating for a much larger boat. Bargain. Frank V. Borick, 152 West 42nd Street, New York City.

SPEED BOAT FOR SALE—Capable of doing 67 M.P.H. All mahogany, double planked and copper fastened. Boat was built for Harry S. Harkness, costing \$33,000. Good chance for a mechanic or speed demon. \$1,000. Care John O'Donnell, 3038 Emmons Ave. Tel. 3564 Sheepshead, Brooklyn.

FOR SALE

33 ft. Baby Gar, speed over 55 M.P.H. Forward cockpit has low wind resistance cabin; non-vibrating and removable. Triplex glass, Lux fire system. New Gar Wood engine, used only 15 hours; Siren, compasses, etc.; perfect condition. Price \$7,500.00. Address Thorne Donnelly, Room 1801, Railway Exchange Bldg., Chicago Ill.

Do It Today

Tell your newsdealer to reserve for you a copy of

MOTOR BOATING'S
ANNUAL SHOW NUMBER

February Issue

Seventy-Five Cents a Copy

WANTED—Pair of big Hall-Scott engines with reducing gear. State full particulars and price. Address 61, care MoToR BoatingG.

New Sea-skiff trunk cabin cruiser, 36'x9'3"x26", mahogany wind-shield and trim, forward cockpit, four berths, canopy top, toilet, galley, etc. This boat has never been overboarded and now located at the builders' shop where any engine size up to 200 horse power can be installed. For bargain price and further details write G. Hensler, 73 Wilson Avenue, Newark, N. J. Telephone Market 0724.

FOR SALE, Rebuilt Sterlings, Kermaths, Grays, Universals, Evinrudes and other LEADING makes. Lowest prices. Every engine GUARANTEED. Write for latest BARGAIN list and tell us what size you are interested in and we will quote prices. W. L. Masters & Co., 804 N. Clark St., Chicago, Ill.

Please mention MoToR Boating, 119 West 40th St., New York

REBUILT MOTORS

The largest selection available anywhere in this country is offered below at prices which will surprise you. Our entire stock of used engines has been reduced to a fraction of their value. We have purposely eliminated prices. Write us and we will quote the new reduced price on any machine you select. Remember, our rebuilt machines are covered by our **ABSOLUTE GUARANTEE**.

WE WILL TAKE YOUR OLD MOTOR IN TRADE

QUOTATIONS ON OUR REBUILT MOTORS ARE SUBJECT TO PRIOR SALE. WE THEREFORE REQUEST THAT YOU WIRE US TO HOLD FOR YOU THE MOTOR WHICH YOU SELECT, FOLLOWING WITH DEPOSIT BY FIRST MAIL. THERE WILL BE A NOMINAL CHARGE MADE FOR CRATING, ACCORDING TO THE SIZE OF THE ENGINE.

- 300 H.P. Sterling Dolphin, Model GR, $5\frac{1}{4} \times 6\frac{1}{4}$, 8 cyl., with carburetor, coil, electric starter, generator, storage battery, etc., complete up to and including coupling.
- 300 H.P. Sterling Model GR (Dolphin), 8 cyl., 4 cycle, starter, generator with triple ignition, reverse gears, etc., complete up to and including couplings.
- 290 H.P. Sterling Dolphin Special, 6 cyl., $5\frac{1}{2} \times 6\frac{1}{4}$, with electric starter, generator and storage battery, triple ignition, two carburetors, reverse gear, etc., complete up to and including coupling, in perfect running order, as is.
- 200 H.P. Sterling, 8 cyl., 4 cycle, Model FS, $5\frac{1}{2} \times 6\frac{1}{4}$, with carburetor, coil, reverse gear, electric starter, generator, etc., complete up to and including coupling.
- 170 H.P. Sterling, 8 cyl., 4 cycle, enclosed Model FM, $5\frac{1}{2} \times 6\frac{1}{4}$, with carburetor, two point magneto and coil, electric starter and generator, storage battery, reverse gear, etc., complete up to and including coupling; completely rebuilt and refinished; guaranteed perfect running order.
- 150 H.P. Sterling Dolphin, Model GR, 4 cyl., $5\frac{1}{4} \times 6\frac{1}{4}$, complete with North East triple ignition, Stromberg carburetor, reverse gear, etc., complete up to and including coupling, electric starter and generator.
- 150-180 H.P. Sterling, Model R, 8 cyl. valve in head, $5\frac{1}{2} \times 6\frac{1}{4}$, with Bosch magneto, coil, carburetor, reverse gear, etc., complete up to and including coupling, as is.
- 150 H.P. Sterling Sea Gull engine, 6 cyl., high speed, late model, entirely rebuilt, refinished and retested by the Sterling Engine Co. in their factory and brought up to date, having non-backfiring device attached, vacuum gasoline feed system attached, complete catalog equipment.
- 150 H.P. Sterling Model GR (Dolphin type), 4 cyl., $5\frac{1}{4} \times 6\frac{1}{4}$, with carburetor, triple ignition, electric starter, generator, storage battery, reverse gear, etc., complete up to and including coupling.
- 150 H.P. Kermath, used only two months, B.B.E., high speed, 6 cyl., $5 \times 5\frac{1}{2}$ -dual overhead valves, starter, generator, etc., complete, perfect condition.
- 125 H.P. Sterling, Model FM, 6 cyl., $5\frac{1}{2} \times 6\frac{1}{4}$, with electric starter, generator, magneto, reverse gear, etc., complete up to and including coupling, as is.
- 120-160 H.P. Mason Jager, 6 cyl., 4 cycle, $5\frac{1}{2} \times 7$, with electric starter and generator, Bosch magneto, carburetor, reverse gear, etc., complete up to and including coupling.
- 125 H.P. Sterling, 6 cyl., Model F, $5\frac{1}{2} \times 6\frac{1}{4}$, with electric starter, generator, carburetor, reverse gear, etc., complete up to and including coupling, as is.
- 114-190 H.P. Loew Victor "Harbeck," 6 cyl., 4 cycle, $7\frac{1}{2} \times 8\frac{1}{4}$, with carburetor, coil, Bosch magneto, reverse gear, etc., complete up to and including coupling with Leece Neville 24 volt generator, as is.
- 112-150 Van Blerck, Model M, 6 cyl., $5\frac{1}{4} \times 6$, with carburetor, coil, magneto, electric starter and generator, etc., complete up to and including coupling.
- 110-145 H.P. Sterling, Model FM, 6 cyl., $5\frac{1}{2} \times 6\frac{1}{4}$, with carburetor, magneto, electric starter and generator, storage battery, reverse gear, etc., complete up to and including coupling.
- 100-130 H.P. Van Blerck, 6 cyl., with carburetor, magneto, electric starter and generator and storage battery, reverse gear, as is.
- 100 H.P. Kermath unit B.B.E., high speed, 6 cyl., $4\frac{3}{4} \times 5\frac{1}{2}$, starter, generator, etc., complete factory rebuilt and guaranteed.
- 100 H.P. Kermath B.B.E., high speed, 6 cyl., $4\frac{3}{4} \times 5\frac{1}{2}$, starter, generator, etc., complete.
- 100-150 H.P. Peerless L head, Model MD, 5×7 , with electric starter and generator, ignition, carburetor, reverse gear, etc., complete up to and including coupling.
- 90-100 H.P. Sterling, Model FS, 4 cyl., 4 cycle, $5\frac{1}{2} \times 6\frac{1}{4}$, with carburetor, coil, magneto, two point ignition, electric starter and generator, reverse gear, etc., complete up to and including coupling.
- 90 H.P. Matheson, 4 cyl., 4 cycle, auto type, with carburetor, coil and spark plugs, as is.
- 90 H.P. Sterling, Model R, 4 cyl., 4 cycle, $5\frac{1}{4} \times 6\frac{1}{4}$, with electric starter and generator, storage battery, Bosch dual two point magneto and coil, carburetor, reverse gear, etc., complete up to and including coupling.
- 75 H.P. American British (Elco), 6 cyl., 4 cycle, 5×5 , with carburetor, magneto and coil and Paragon reverse gear, recently overhauled by previous owner; claimed to be in good running order, as is.
- 75 H.P. Frisbie, 6 cyl., 6×6 , with electric starter, carburetor, reverse gear, etc., complete up to and including coupling.
- 75-100 H.P. Van Blerck, 4 cyl., 4 cycle, with electric starter, generator, storage battery, carburetor, reverse gear, etc., complete up to and including coupling, in fairly good running order, as is.
- 74 H.P. Van Blerck, Model MM4, 4 cyl., 4 cycle, $5\frac{1}{4} \times 6$, with electric starter and generator, storage battery, carburetor, magneto, distributor and coil, reverse gear, etc., complete up to and including coupling.
- 70-90 H.P. Sterling heavy duty, valve in head, 6 cyl., 4 cycle, $6\frac{1}{2} \times 9$, late type, with carburetor, coil magneto, mechanical oiler, spark plugs, air pump, reverse gear, etc., with electric self starter and generator, complete up to and including coupling.
- 70 H.P. Sterling heavy duty, $6\frac{1}{2} \times 9$, T head, with carburetor, coil, magneto, air pump, bilge pump, reverse gear, etc., complete up to and including coupling.
- 65 H.P. Kermath B.E.F., factory rebuilt and factory one year guaranteed, f.o.b. Detroit.
- 60-90 H.P. Speedway, 6 cyl., 4 cycle, 6×6 , with overhead valves, carburetor, coil, magneto, rear starter, reverse gear, etc., complete up to and including coupling, as is.
- 60-75 H.P. Murray & Tregurtha, 6 cyl., $6\frac{1}{2} \times 8$, with carburetor, coil, high tension magneto, reverse gear, etc., overhauled by makers.
- 60 H.P. Sterling heavy duty, 6 cyl., $6\frac{1}{2} \times 8$, with carburetor, coil, magneto, no reverse gear, in good running order, as is.
- 60-85 H.P. Sterling, Model FM4, $5\frac{1}{2} \times 6\frac{1}{4}$, in good running order, as is. Complete with electric starter, generator, etc.
- 50-65 H.P. Hall, 4 cyl., 4 cycle, $7\frac{1}{2} \times 10$, heavy duty, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling.
- 50-85 H.P. Sterling, 6 cyl., 4 cycle, $5\frac{1}{2} \times 6\frac{1}{4}$, Model B4, with Bosch dual magneto and coil, carburetor, electric starter and generator, reverse gear, etc., complete up to and including coupling.
- 50-60 H.P. Standard, 4 cyl., 4 cycle, $6\frac{1}{2} \times 8$, new type valve in head, carburetor, reverse gear, etc., complete up to and including coupling.
- 50-60 H.P. Red Wing Big Chief, 4 cyl., 4 cycle, 5×7 , with electric starter, generator, storage battery, carburetor, reverse gear, etc., complete up to and including coupling. Practically new.
- 50 H.P. Sterling, Model R, 4 cyl., 4 cycle, $4\frac{3}{4} \times 5\frac{1}{2}$, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling.
- 50 H.P. Chalmers (Auto), 6 cyl., 4 cycle, with Stromberg carburetor, Bosch magneto and coil, electric starter and reverse gear, as is.
- 50 H.P. Scripps (Model K2-44), 4 cyl., 4 cycle, $5\frac{1}{2} \times 6$, with ignition, carburetor, reverse gear, etc., complete up to and including coupling, as is.
- 50 H.P. Wisconsin, 4 cyl., 4 cycle model, $4\frac{3}{4} \times 5\frac{1}{2}$, with electric starter, generator, storage battery, Bosch two point magneto, carburetor, reverse gear, etc., complete up to and including coupling, all in splendid condition.

Advertising Index will be found on page 178

- 45 H.P. Sterling heavy duty, 4 cyl., 4 cycle, $6\frac{1}{2} \times 9$, Model D-4, with carburetor, coil, magneto, air pump, bilge pump, reverse gear, etc., complete up to and including coupling.
- 45-75 H.P. Sterling, Model B, 6 cyl., 4 cycle, $5\frac{1}{2} \times 6$, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling.
- Twin 45 H.P. each Sterling heavy duty, 4 cyl., 4 cycle, T head, $6\frac{1}{2} \times 9$, Model D-4, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling.
- 40-50 Twentieth Century, 4 cyl., 4 cycle, $6\frac{1}{2} \times 8\frac{1}{2}$, late model with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling.
- 40 H.P. Lamb heavy duty, 4 cyl., 4 cycle, $6\frac{1}{2} \times 7$, with carburetor, magneto and reverse gear, as is.
- 40-50 H.P. Twentieth Century, 6 cyl., 4 cycle, about $5\frac{1}{4} \times 7\frac{1}{4}$, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling, as is.
- 40 H.P. Roberts, 4 cyl., 2 cycle, with carburetor, coil and coupling, as is.
- 35-55 H.P. Sterling, 6 cyl., Model B, $4\frac{1}{4} \times 5\frac{1}{2}$, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling.
- 35-85 H.P. Sterling, Model FH, 6 cyl., $5\frac{1}{2} \times 6\frac{1}{2}$, heavy duty, with electric starter, generator, storage battery, reverse gear, etc., complete up to and including coupling.
- 32 H.P. Wolverine, 3 cyl., 4 cycle, $7\frac{1}{2} \times 9$, with carburetor, coil, magneto, kerosene fuel attachment, reverse gear, etc., complete up to and including coupling. Rebuilt, retested and refinished in the Wolverine factory.
- 32-37 H.P. Standard, 4 cyl., 4 cycle, 6×8 , with magneto, coil, carburetor, reverse gear, etc., complete up to and including coupling.
- 30-40 H.P. Grant Ferris, 4 cyl., 4 cycle, 6×6 , with carburetor, coil, Atwater Kent ignition and reverse gear, as is.
- 30-50 H.P. Lamb, 3 cyl., 4 cycle, $6\frac{1}{2} \times 7$, with carburetor, coil, reverse gear and magneto, as is.
- 30-50 H.P. Sterling, 4 cyl., $5\frac{1}{2} \times 6$, with carburetor, magneto, oiling system, reverse gear, etc., complete up to and including coupling. New cylinders, new exhaust manifold and new carburetor, as is.
- 30-45 H.P. Sterling, Model B, 4 cyl., 4 cycle, $5\frac{1}{2} \times 6$, with carburetor, magneto, coil, electric starter and generator, reverse gear, etc., complete up to and including coupling.
- 30-45 H.P. Sterling, 4 cyl., 4 cycle, $5\frac{1}{2} \times 6$, Model B, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling.
- 30-45 H.P. Sterling, 4 cyl., 4 cycle, $5\frac{1}{2} \times 6$, with carburetor, coil, magneto and reverse gear complete up to and including coupling.
- 25 H.P. Hall, 4 cyl., 4 cycle, $5\frac{1}{2} \times 6$, with carburetor, distributor and coil, reverse gear to coupling, as is.
- 25-35 H.P. Sterling, Model D, 4 cyl., 4 cycle, $5\frac{1}{2} \times 8$, heavy duty, 400 to 500 r.p.m., with Bosch dual magneto and coil, also Atwater Kent distributor and coil, carburetor, reverse gear, etc., recently overhauled by previous owner, as is.
- 25-35 H.P. Peerless, 4 cyl., 4 cycle, L head, 5×6 , with ignition carburetor coil and reverse gear, etc., complete up to and including coupling.
- 24-27 H.P. Standard, 3 cyl., 4 cycle, 6×8 , with carburetor, magneto, reverse gear, etc., complete up to and including coupling.
- 24 H.P. Lamb, 4 cyl., 4 cycle, with electric starter, generator, double ignition, in good condition.
- 22-35 H.P. Niagara, 4 cyl., 4 cycle with carburetor, coil, magneto, reverse gear to coupling, as is.
- 20-25 H.P. Holmes, 4 cyl., 4 cycle, with carburetor, Atwater Kent distributor and coil, reverse gear. In running order, as is.
- 20-35 H.P. Ferro, 4 cyl., 4 cycle, with carburetor, magneto, coil and reverse gear. As is, in running order.
- 20-35 H.P. Sterling, 4 cyl., 4 cycle, $4\frac{1}{2} \times 5\frac{1}{2}$, with carburetor, magneto, reverse gear, etc., complete up to and including coupling.
- 20 H.P. Kermath, 4 cyl., 4 cycle, very late model, electric starter, generator, built-in reverse gear, etc., complete up to and including coupling.
- 20 H.P. Kermath Unit F factory rebuilt and factory one year guarantee.
- 20 H.P. Kermath Unit F factory rebuilt, refinished and factory one year guarantee.
- 18-25 H.P. Sterling, Model B, $4\frac{1}{4} \times 5\frac{1}{2}$, 4 cyl., 4 cycle, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling.
- 18-25 H.P. Sterling, Model B, 4 cyl., 4 cycle, $4\frac{1}{4} \times 5\frac{1}{2}$, with mechanical oiler, Bosch magneto, Schebler carburetor, reverse gear, etc., complete up to and including coupling.
- 17-25 H.P. Sterling, 4 cyl., 4 cycle, $3\frac{1}{4} \times 5\frac{1}{2}$, Model E2, with electric starter, storage battery, carburetor, magneto and coil, reverse gear, etc., complete up to and including coupling, as is.
- 17-25 H.P. Sterling, Model E1, with carburetor, magneto, coil and reverse gear, as is.
- 16-21 H.P. Ideal, 4 cyl., 4 cycle, with carburetor, coil, Atwater Kent distributor and reverse gear, as is.
- 16 H.P. Rochester, 3 cyl., 2 cycle, with carburetor, coil, coupling, as is.
- 16-18 H.P. Standard, 2 cyl., 4 cycle, 6×8 , with carburetor, magneto, reverse gear, etc., complete up to and including coupling.
- 16 H.P. Regal, 4 cyl., 4 cycle, $4 \times 4\frac{1}{2}$, with magneto, reverse gear, mechanical oiler, etc., complete to coupling, in running order, as is.
- 16 H.P. Kermath Unit F rebuilt and one year guarantee.
- 15 H.P. Royal, 2 cyl., with carburetor, coil, etc., as is.
- 12-14 H.P. Bridgeport, 2 cyl, 2 cycle, with make and break coil, carburetor, as is.
- 12 H.P. Hall, 2 cyl., 4 cycle, with carburetor, make and break coil, separate Palmer reverse gear, etc., as is.
- 12-15 H.P. Fairbanks, 2 cyl., 2 cycle, with carburetor, coil, magneto and coupling, as is.
- 12 H.P. Barber, 2 cyl., 2 cycle, with carburetor, as is.
- 12 H.P. Harris, 2 cyl., 4 cycle, $5\frac{1}{4} \times 6$, with carburetor, coil, magneto, reverse gear, etc., complete up to and including coupling, as is.
- 12-15 H.P. Automatic, 2 cyl., 4 cycle, 5×7 , with carburetor, coil reverse gear, etc., complete up to and including coupling.
- 12 H.P. Twentieth Century, 2 cyl., 4 cycle, with carburetor, coil, magneto, distributor and reverse gear, as is.
- 12 H.P. Daimler, with carburetor and timer only, as is.
- 12 H.P. Kermath Unit F with electric starter and generator, complete up to and including coupling.
- Two 12 H.P. Kermath Unit F, factory built, refinished and factory one year guarantee.
- 10-15 H.P. Portage, 3 cyl., 4 cycle, 4×5 , with carburetor, coil and reverse gear, as is.
- 10-12 H.P. Pearl, 2 cylinder, 4 cycle, with carburetor, coil and reverse gear, as is.
- 10 H.P. Hubbard, 1 cyl., 2 cycle, with coil and coupling, as is.
- 10 H.P. Ferro, 2 cyl., 2 cycle, with carburetor, timer and coupling, as is.
- 10 H.P. Herfurth (formerly Emerson), 2 cyl., 2 cycle, 5×7 , with Paragon reverse gear, Schebler carburetor and battery ignition, in good running order, as is.
- 10-14 H.P. Frisbie, 2 cyl., 4 cycle, with carburetor, coil, Atwater Kent distributor, Paragon reverse gear, as is.
- 8-10 H.P. Bridgeport, 2 cyl., 2 cycle, with carburetor and coil, as is.
- 8-10 H.P. Royal, 2 cyl., 2 cycle, with carburetor, coil and coupling.
- 8 H.P. Palmer, Model LN2, 2 cyl., 4 cycle, with carburetor, Atwater Kent ignition and reverse gear, inspected and operated by our man and in splendid running order, as is.
- 7 $\frac{1}{2}$ H.P. Craig, single cylinder, 4 cycle, 6×7 , with carburetor, coil and reverse gear, as is.
- 6 H.P. Gaffga, 2 cyl., 2 cycle, with carburetor and coil, in nice condition, as is.
- 6 H.P. Gray, single cylinder, 2 cycle, with carburetor and coil, as is.
- 6 H.P. Hubbard, single cylinder, with make and break coil and one way clutch, as is.
- 5-7 H.P. Palmer, single cylinder, with make and break coil, carburetor and coupling, as is.
- 5 H.P. Mianus, 1 cyl., 2 cycle, carburetor, coil etc., complete, as is.
- 5 H.P. Detroit, single cylinder, 2 cycle, with coil and coupling, as is.
- 4 H.P. Barker, 1 cyl., 2 cycle, as is.

BRUNS, KIMBALL & CO., Incorporated

Largest Marine Engine
Dealers in the World

MAIN OFFICE AND SHOW ROOMS: 50-52-54 WEST 17TH STREET, NEW YORK CITY

Shops, JERSEY CITY, N. J.

Telephone: Watkins 4646-7-8-9-0

"Originators of the Rebuilt Engine"

Branch Store: Philadelphia, Pa.

Please mention MOTOR BOATING, 119 West 40th St., New York

Now ready for launching. Fully equipped for a Florida cruise. Built by the best craftsmen to last a lifetime.



Able
Luxurious
Beautiful
Speed
14-15 miles

New Lawley 38-ft. Cruisers Only Two Left

Owing to large amount of special yacht construction under way no more of these famous 38-ft. cruisers will be built this year.

The price has been reduced on the remaining boats to \$8,750. These same yachts custom built at the Lawley yards would cost \$12,500.

These yachts beautifully finished in mahogany. Commodious cabin. Also a double stateroom, attractively upholstered. Galley, toilet, clothes lockers—conveniently located. Ample accessible storage space under large after cockpit, built to take steamer trunks or other equipment for an extended Southern cruise.

For particulars of purchase apply to

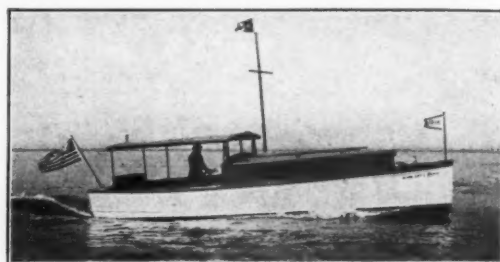
ELDREDGE-McINNIS, Inc.

Naval Architects and Yacht Brokers

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BOSTON

Exclusive Sale Agents for Lawley 38-ft. Cruisers



ELCO CRUISETTE, 1927, DELIVERED THIS YEAR, PERFECT CONDITION.

ELCO CRUISETTE, 1921, GOOD SHAPE.

DAWN 36-FOOT DAY CRUISER, 4 CYCLE STEARNS, EXCELLENT CONDITION.

ALBANY 36-FT. BRIDGE DECK CRUISER, ACCOMMODATIONS FOR SIX, 75-H.P. VAN BLERCK.

TELEPHONE, WRITE OR WIRE FOR FURTHER PARTICULARS.

DAWN BOAT CORP., CLASON POINT, NEW YORK CITY—TELEPHONE: WESTCHESTER 7000.

Yard and Shop

(Continued from page 44)

RULES FOR CONDUCTING MILE TRIALS COMPILED BY AMERICAN POWER BOAT ASSOCIATION RACING COMMISSION

1. The length of the course shall be a straightaway of one statute mile (5280 feet) or one nautical mile (6080 feet) in length.
2. The course shall be surveyed by a competent engineer, approved by the Racing Commission and he shall file a chart of same with distances, ranges, marks, buoys, etc., clearly indicated thereon.
3. The boats shall be timed by at least three competent timers approved by the Racing Commission.
4. Approved stop watches (or electrical device) shall be used to time the boats.
5. The test shall consist of six consecutive one-mile runs, three of which shall be made in one direction and three in the opposite direction. The boats shall be timed on each of these runs as provided above. The times as indicated by the watches for each run shall be averaged and the average speed computed for each run. The sum of the speed for the six runs shall be computed and this sum shall be divided by six. The quotient will be the average speed of the boat in miles per hour.
6. The boats, power plants, etc., shall be measured by a competent measurer approved by the Racing Commission and a copy of the measurements filed with the Racing Commission.
7. A boat shall not leave the course before the six runs are completed. Should it be necessary to refuel, this shall be done without leaving the course.
8. There shall be no changes made in hull, powerplant, crew, etc., during the progress of the trials.
9. The starts shall be "flying" and time will be taken as the stem of the boat crosses the line.
10. Each contesting boat will make the six one-mile runs by herself in such order as shall be determined by lot.
11. The official start and finish of each run shall be designated by the rapid dropping of a flag by persons stationed at each end of the one-mile straightaway course.

On the Use of Marine Glue

In the explanation of the construction of the canvas covered canoe Canvasback, in an issue of *MoToR BoatinG* a month or two back, the designer did not make very clear the uses to which marine glues could be applied in the construction of a boat of this kind. It happens that L. W. Ferdinand, 152 Kneeland St., Boston, the manufacturers of Jeffries marine glue have published a very complete construction booklet which covers the use of this material very completely and details the processes of applying this glue in the building of a boat. In a canvass covered boat, such as this little canoe, this material lends itself particularly well to the securing of the canvas outer cover to the wooden hull, and the particular process by which this can be done neatly is completely described in the booklet. Amateur boat builders will find that among the several grades of marine glue which are made, there is certain to be one which fits the particular work in hand best. For such work as applying canvas, there is a particular grade which should be used and in a similar way for such work as filling seams, there are other grades which are best for this particular purpose. It is well for the amateur builder to inform himself of the qualities of each different grade, and follow the instruction booklet carefully in the method of its application and use. Needless to say, a copy of this booklet can be quickly secured from the Ferdinand Company on request.

A New Gray Engine

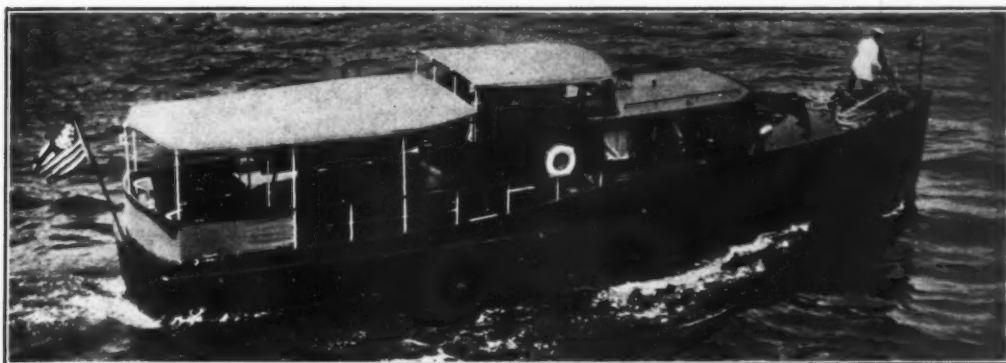
The Gray Marine Motor Co., Detroit, Michigan, recently announced their new eight cylinder engine which is to be put on the market shortly after the New York Motor Boat Show during which it is to be exhibited. The new motor is said to be very compact for its power, having an overall length of sixty inches, an extreme height of seventeen and a quarter inches and an exact weight of 765 pounds and its builders consider it one of the most promising models so far constructed.

(Continued on page 70)



New at Reduced Price

MAYBACH-LUERSSSEN 30 M.P.H. EXPRESS DAY CRUISER—41' x 8' powered with two 110 H.P., 6-cylinder Maybach Marine Engines, total gasoline consumption at full speed, 14 gallons per hour. Accommodations include forward and after cockpit, spacious deck salon with full headroom, automobile type controls, ice box, alcohol stove, and separate toilet. Equipment is complete in all respects. Hull double planked natural finished mahogany, decks spruce, frames and keel oak, copper fastened, finest materials and workmanship. Boat was built for exhibition purposes.



For Sale or Charter

51' x 11'6" Twin-Screw Cruiser. Two 68 H.P. Maybach Motors.
Cruising Speed, 15 M.P.H.

New this year. Owner building larger yacht. Accommodations include two double staterooms, two toilets, lovely large deckhouse with day-bed, large galley, crew's quarters for two men, forward cockpit, separate engine room. Separate gas-electric generator with batteries and water pressure system. Plenty of lockers and complete equipment.

MAYBACH MOTOR COMPANY

F. W. VON MEISTER, General Agent for U. S.

578 MADISON AVENUE

NEW YORK CITY

I have on exhibition here one of the WONDERFUL NEW 28' RICHARDSON MASTER CRUISABOUTS. I also have for sale the last of the 26" models. F. D. Homan, agent, 78 Riverside Ave., Amityville, L. I., N. Y.; tel., 110. Boats bought, sold, traded. Terms. Open Sundays.

WANTED—Modern cruiser, about 50 ft. State price and full particulars. Address Box 62, care MoToR Boating.

FOR SALE—1926 Dodge Water Car, 26', 100 H.P. motor; speed, 30 miles. All in first-class condition. \$1,800. Frank Grimes, 150th Street and Hudson River, New York City.

WANTED—Pair of big Hall-Scott engines with reducing gear. State full particulars and price. Address 61, care MoToR Boating.

OUTBOARD RACING MOTORS

Two Johnson big twins, rebored, with aluminum pistons; brand new, \$225 each. One Cute-Craft boat, slightly used, \$100; and one Johnson 1927 light twin demonstrator, \$100. Address Box 63, MoToR Boating.

Marine machinist, A-1 all-around man, machine tools, blacksmith, welder, tinsmith, rim wood-working machines, make knives, braze and file band and circular saws, seeks position where ability will be recognized; will go anywhere. Charles Gaiser, care Randle, 1867 Cedar Avenue, Morris Heights, New York City.

Johnson outboard small twin; used one season; just completely overhauled by makers; in guaranteed condition. \$75.00.

BRUNS, KIMBALL & CO.
50-52-54 West 17th Street
New York City

Mathews enclosed bridge deck, 38'; double cabin, Kermath 150-H.P., reduction gear, spring bunks, radio, dinghy; fully equipped, everything in first-class condition. Owner buying larger boat. Make offer.—33x8½x2½ raised deck cabin cruiser; Kermath 4-cyl., 70-H.P., 15 m.p.h.; sleeps four; in first-class condition; \$1,500.—Richardson 23, built 1926; fully equipped; a buy at \$1,600.—35' double cabin raised deck cockpit cruiser; Miller heavy duty motor; former flagship C. Y. C.; \$1,800. "Mike" Shea, 1424 Lauderdale Ave., Lakewood, Ohio; phone, Lakewood 9392-J.

FOR SALE

Bridge deck. 150 H.P. Speedway
Bridge deck. 40 H.P. Wisconsin
Bridge deck. 55 H.P. Sterling
Bridge deck. 225 H.P. Sterling
Raised deck. 8 H.P. Harris
Raised deck. 20 H.P. Kermath
Raised deck. 150 H.P. Scripps
Speed Boat. 300 H.P. Fiat
Speed Boat. 25 H.P. Sterling
Marine Constr. Co., Wilmington, Del.

Please mention MoToR Boating, 110 West 40th St., New York

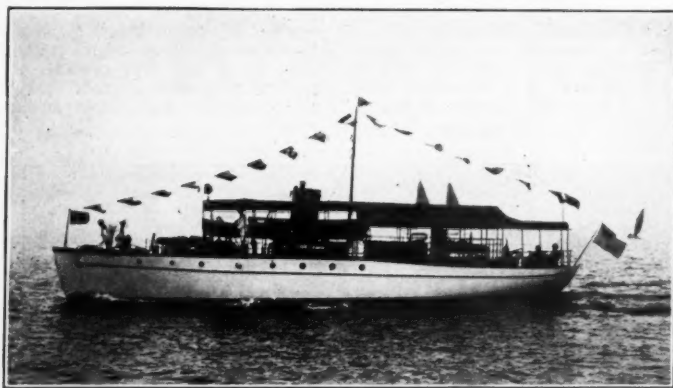
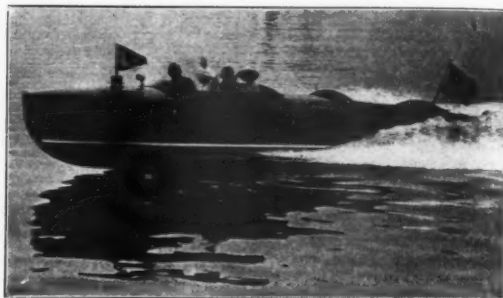
FOR SALE

Twenty-six-foot Bearcat, about 2½ years old; has run less than 500 miles; recently overhauled and renovated and is now in perfect condition.

The boat is now in Florida water, ready for immediate delivery, and will be sold at a sacrifice. Owner securing larger boat reason for sale.

Address all inquiries to

JOHN ZIMMERMAN, 1514 Barnett National Bank Building, Jacksonville, Florida



No. 2524—FOR SALE—In Commission, ready to leave for Florida. 65-ft. raised deck cruiser. Speed up to 14 miles; 6 cyl. 80 H.P. Winton motor, just overhauled. Two double staterooms, large dining saloon, toilet room, galley with shipmate range, etc. Beautifully finished in mahogany and white enamel. Upholstery and curtains new. Price attractive. Further particulars from Cox & Stevens, 341 Madison Ave., New York City.



26-Foot Trunk Cabin Cruiser with the room and accommodations of a 32-footer. 20-24 H.P. Kermath engine. Electric starter, electrically lighted complete equipment. A fine sturdy sea boat at a very low price.

BRUNS KIMBALL & CO.
50 West 17th St. New York City



FOR SALE—Beautiful Mahogany Chris-Craft, Curtis Engine and Hull, in perfect condition. Located Florida waters. Immediate delivery for \$2,250.00. Address P. O. Box 926, De Land, Fla.

BARGAIN BOOK

Get new January list. A few representative items in it; USED motors, one "Six-90" -928 refinements, \$700.00, used as demonstrator this fall only. Few remanufactured good as new three brand new special 45 h.p. model "VE" at \$350; Model D. 20-24 h.p. Bosch Magneto, \$200; one same as new, 35 h.p. model "V" with Electric Starter at \$300. Three brand new Experimental Gray Sixes 35 h.p. at \$350 each. Big six cylinder Van Blerck splendid condition, Electric Starter, \$250.00. Gray Marine Motor Company, Detroit, Michigan.

FOR SALE—18-24 h.p., 2 cyl., KAHLLENBERG motor completely rebuilt good as new. Only \$395.00. W. L. Masters & Co., 804 N. Clark St., Chicago, Ill.

BARGAIN: Raised Deck Cruiser, 32' x 9'. New Mianus Motor, full equipped. Taken in exchange. Owner purchased a much larger boat. Price \$1,800. Good as new. Guaranteed perfect. Frank V. Borick, 152 West 42nd Street, New York City.

FOR SALE—5 rebuilt Universal marine motors, guaranteed good as NEW. Send for latest Bargain List. W. L. Masters & Co., 804 N. Clark St., Chicago, Ill.

BARGAIN—Model "D" 20-24 h.p. Bosch Magneto, Impulse, one year guarantee, good as new \$200.00. Gray Marine Motor Company, Detroit, Michigan.



A genuine 20' Cape Cod Dory, built 1927, used only one season, powered with 4-cyl. Palmer Little Husky model, 11 miles speed. In perfect condition and with many extras, including searchlight, awning and spray hood; all metal work chromium plated. A perfect sea boat at a bargain.

BRUNS KIMBALL & CO.
50-52-54 West 17th Street New York City

FOUR-CYLINDER, FOUR-CYCLE, WITH REVERSE GEARS: 16-h.p. Kermath unit plant, \$185; 20-25-h.p. Danielson unit plant, \$155; 20-h.p. Gray Model Z with starter-generator, \$285; 16-h.p. Universal unit plant, \$145; 25-30-h.p. Red-Wing unit plant, \$255; 20-h.p. Kermath, \$285; 40-h.p. Automatic heavy duty, 6½x8, \$650. Also two-cylinder Buffalo, 6¼x7, heavy duty, \$380; 40-h.p. Wisconsin six-cylinder 4½x5 with starter-generator, \$385; also two-cycle engines at low prices. Badger Motor Company, Milwaukee, Wis.

FOR SALE—Hall-Scott, marine motor, six cylinders, special 220 h.p. Best of condition, complete. Lee Templeton, 407 W. Main St., Norristown, Pa.

150 H. P. KERMATH

New July, 1927—6 cyl. high speed—dual overhead valve, starter generator, etc., complete. Replaced with motor of larger power. In perfect condition. A bargain. Act immediately.

Box 58, Motor Boating

We have to offer a number of decided bargains in engines, as well as boats and equipment. Please state your requirements. A. M. Deering, 1642 Monadnock Bldg., Chicago.

FACTORY REBUILT KERMATH ENGINES

Pick Yours From This List

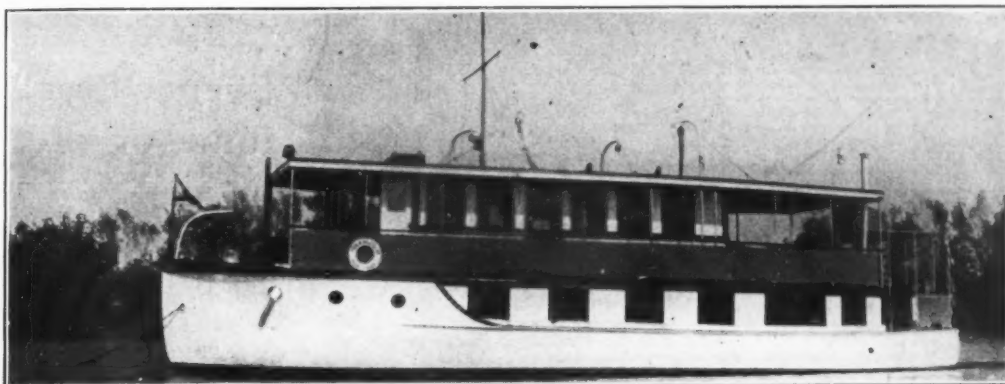
12 H.P. Unit F.....	\$ 350
16 H.P. Unit F.....	\$ 375
20 H.P. Unit F.....	\$ 400
20 H.P. Unit F (with starter).....	\$ 475
35 H.P. B.E.F.	\$ 750
50 H.P. B.E.F.	\$ 850
100 H.P. B.E.F.	\$1150

These motors have the factory guarantee of one year on them. They are bargains at these prices.

Kermath Mfg. Co., 5679 Commonwealth Ave. Detroit, Michigan

FOR SALE: Elco Cruisette, excellent condition, completely equipped, ready to go anywhere. Price reasonable. H. A. Duckworth, 711 Linden St., Scranton, Pa."

An opportunity for some yachtsman going to Florida this Winter.



No. 4327. This twin screw CRUISING HOUSEBOAT, now in Florida, is offered FOR SALE at a price far below her value. Is 58' over all, 17'6" beam and 2'9" draught. Deckhouse contains pilothouse and dining saloon. Owner's accommodations forward consist of two single and one double staterooms, bath and two toilet rooms, and main saloon. Engines new 1925, used very little. Electric plant, good fuel and fresh water capacity.

Attractively furnished and completely equipped, except china, glassware and silver marked with owner's flag. Yacht and equipment in strictly first-class condition.

Will consider as part payment a one-man twin screw 40-50 ft. bridge deck cruiser.

For further particulars, inquire of H. H. Jennings Company, 29 Broadway, New York City.

Bargains in Shopworn and Used Motors and Boats

- | | |
|---|----------|
| 16 H.P. 2 cyl. 4 cye. Heavy Duty, Clay, 7" bore, 7" stroke. Complete with magneto and force feed oiler, shopworn... | \$600.00 |
| 8 H.P. 2 cyl. 4 cye. Heavy Duty, Clay, 4" bore, 4" stroke. No gear, shopworn... | 200.00 |
| 14 H.P. 4 cyl. 4 cye. Fay & Bowen, 2-13/16" bore, 4" stroke. Shopworn..... | 225.00 |
| 14 H.P. 4 cyl. 4 cye. Fay & Bowen, 2-13/16" bore, 4" stroke. Electric starter, shopworn | 300.00 |
| 20-35 H.P. 4 cyl. 4 cye. Anderson, 4" bore, 5" stroke, Impulse magneto, reverse gear enclosed, shopworn..... | 450.00 |
| 22 H.P. 4 cyl. 4 cye. Fay & Bowen, 3 1/2" bore, 4 1/2" stroke. Factory rebuilt, like new | 250.00 |
| 25-40 H.P. 4 cyl. 4 cye. Fay & Bowen, 4 1/4" bore, 5 1/2" stroke. Factory rebuilt, like new, electric starter..... | 450.00 |
| 85 H.P. 6 cylinder, Fay & Bowen, 5" bore, 6 1/4" stroke. Electric starter, completely overhauled | 800.00 |
| 4 1/2 H.P. Lockwood, outboard, shopworn..... | 100.00 |
| 8 H.P. Evinrude, outboard, shopworn..... | 175.00 |
| 5 H.P. Lockwood, inboard, 1 cyl. 4 cye. with magneto | 100.00 |
| Pen Yan Outboard hydroplane, slightly used | 75.00 |
| Pen Yan 18 ft. Dinghy, slight damage in shipment, shopworn | 50.00 |

Several Used Propellers, Like New

Write for Prices

Sutter Brothers, 44-Third Ave., New York City

CHESTER A. NEDWIDEK

C. H. APPELBY

NAVAL ARCHITECTS YACHT BROKERS

MARINE INSURANCE

103 PARK AVENUE

NEW YORK

Ashland 5334

No. 162

Twin screw express cruiser, 50' x 40' x 11' x 3'. Speed eighteen to twenty miles. Powered with Sterling Dolphins, new 1926. Accommodations for seven in the owner's party. Two toilets. Crew's quarters forward. Delco lighting set. Large galley. Price \$15,000.

No. 61

Raised deck cruiser, 49'0" x 43' x 12' x 3'0", built 1927. Powered with Sterling Dolphin. Speed twelve to fifteen miles. Accommodations are two double staterooms; one toilet; galley amidship; two berths for crew in forecabin. Head room six feet six. Boat built under owner's personal supervision. A real cruiser. Price \$17,500.

No. 163

Double cabin cruiser, 43' x 42'0" x 12' x 3'0", new 1926. Powered with two Kermaths. Speed thirteen to fifteen miles. Accommodations are one double stateroom aft; single stateroom forward; galley amidship. Equipped with Lux fire system, Delco lighting set. This boat is very seaworthy. Price \$15,600.

No. 2

Cruising houseboat, 50' x 49'0" x 14'0" x 3'0". This is the best boat for her size on the market. The accommodations are one double and one single stateroom; bath room; main cabin; galley; engine room; captain's stateroom; crew's berth and toilet. Large deck saloon and pilot house forward. Powered with Sterling engine. Speed ten miles. Complete interior views and blueprint in our file. Price \$15,000.

We have numerous other boats on our lists, all types and sizes. Full information may be had upon request.

All types of craft, both sail and power, DESIGNED, and their construction supervised. Personal attention given on all work.

NAVAL ARCHITECTS & YACHT BROKERS

FLORIDA SERVICE

If you have a boat in Florida waters that you want sold, insured, surveyed, or cared for in any way; or if you wish to purchase one; I can serve you. Over fifteen years' experience as a Naval Architect, Shipbuilder and Inspector. My list of all classes of boats for sale and charter is very extensive.

HAROLD H. BAILEY
206 Exchange Building, Miami, Florida

Thomas D. Bowes, M. E.

NAVAL ARCHITECT AND ENGINEER

Offices:

Lafayette Bldg., Chestnut and Fifth Sts.
PHILADELPHIA, PA.

COX & STEVENS

Naval Architects and Engineers
Yacht Brokers

341 Madison Avenue
(Corner of 44th St.) New York City
Telephone: Vanderbilt 9811

ELDRIDGE-McINNIS, INC.

Naval Architects Engineers

Yacht Brokers

148 State Street McKinley Building
BOSTON, MASS.

(Formerly general managers and naval architects for George Lawley & Son Corporation.)

Frederic P. Humphreys

Incorporated

Naval Architects and
Yacht Brokers

Specialists in Diesel Yacht Construction
347 Madison Avenue Murray Hill 2329
NEW YORK

WALTER COOK KEENAN

NAVAL ARCHITECT

682 Liverpool & London & Globe Bldg.
New Orleans, Louisiana

Ball and power yachts. Houseboats and commercial vessels. Surveys made in all Gulf Ports.

I have a large number of yachts of every description for sale, and some for charter. Stability and free board calculations. Cable address: "Walkeen."

CHARLES D. MOWER YACHT DESIGNER

POWER YACHTS AUXILIARY CRUISERS
RACING YACHTS

285 Main Street CITY ISLAND
NEW YORK CITY
Telephone: City Island 1423

JOHN H. WELLS, INC.

NAVAL ARCHITECTS

Service that's different

BROKERAGE SUPERVISION

Telephones: Murray Hill 3126-7
11 EAST 44th ST., NEW YORK

Yard and Shop

(Continued from page 44)

An Outboard Service School

In a very quiet way the Evinrude Motor Company of Milwaukee, Wisconsin, is rendering outboard motor owners a service which will be far reaching in its results.

It has been the experience of the Evinrude Motor Co., that the average garage man or dealer's repairman knows far too little of outboard motors to give satisfactory repair service. This is not entirely the fault of the repairman, but is due chiefly to the fact that the outboard motor is a 2-cycle, whereas the automobile is a 4-cycle motor. In order to improve the quality of this service, this company maintains the year round a Factory Service School, where dealers or dealer's repairmen are given a thorough service course under Evinrude Department Heads.

Factory training of this kind is valuable to the repairman. He learns not only the construction of each model Evinrude Motor manufactured, but also the factory way of making repairs. Lectures given by accredited engineers explain the principles of two cycle motor construction. The excellent service that he will render customers will in the future prove an excellent business builder, for the dealer. In the opinion of Evinrude Engineers half the trouble that people have today with outboards is due to their own ignorance of the mechanical construction and adjustment of this type of motor, or to the ignorance of the dealer on the same matters. In addition to the service training another important feature of the school is a course of instruction in the best methods to employ in selling Evinrudes.

The course of study at the Service School is from two to three weeks. The school is maintained by Evinrude Motor Co., without charge to dealers or repairmen. Any Evinrude dealer may take the course of training or have his repairman take the course by making application to the factory. The Factory arranges the training schedules in the order that applications are received. Forty students is the maximum number that can be accommodated at one time.

The big season for the school is during the winter months, from November to March. Enrollments for the winter months this year have been coming in at a brisk rate, although factory officials state that they can still take care of a considerable additional number of repair service students. Dealers handling Evinrude Motors have been quick to take advantage of this co-operation given them by the factory, and more and more are either going themselves or sending their repairmen to receive the factory repair service course. As schedules are arranged sometime in advance any Evinrude dealers wishing to take the Service Course this winter should write The Evinrude Motor Co., at once for application blanks and complete information about the Service School.

A regular instruction schedule is followed in the school. In addition to class lectures each student receives individual coaching on the practical work. The schoolroom itself, is a busy adjunct of the factory. In it is installed the very latest repair equipment. The parts of each model Evinrude Motor together with the main sub-assemblies are grouped and mounted on the walls for the convenience of the students.

It is the desire of the Evinrude Motor

Advertising Index will be found on page 172

THEODORE D. WELLS

NAVAL ARCHITECT—MARINE ENGINEER

Established 1903

33 RECTOR ST. NEW YORK, N. Y.

11th Floor

Designing — Construction Supervision
Repairs — Surveying Insurance
Brokerage —

Everywhere, the fumes of gasoline!

TO HAVE struck a match would have been a direct invitation to the coroner. So I got my flashlight and soon had the engine running again. I wouldn't push off without a good flashlight.

Nor would I use any batteries but genuine Eveready. I know from experience that they give the brightest light for the longest time. They're made by the Eveready Radio Battery people. That ought to be guarantee enough for anybody.

Get the flashlight habit. Canoe or cabin-cruiser, you need a flashlight every night. Make it standard equipment!

Co., to have all Evinrude dealers or their repairmen learn thoroughly both outboard construction and the correct repair methods. With the Service School so easily available there is no excuse for Evinrude dealers who do not give the best of service.

In maintaining this Service School the Evinrude Motor Co. is surely performing a worthwhile service to the consumer. His appreciation will go far in promoting the general popularity of the Outboard Motor Industry. As factory trained repairmen are located in all parts of the Country, there will be a chance for their helpers to learn the correct service methods, and become skilled repairmen. In the course of a short time the grade of the service work done locally, on outboard motors, will be of a far higher more satisfactory grade, than that which has in the past handicapped the industry.

As all outboard motors are to some extent built along the same lines, the Evinrude Repair Service Course is a benefit to repairmen in repairing all makes of outboard motors; the entire industry is benefited. Before long the class of repairmen who used to try to repair outboard motors knowing little about them, who therefore left a wake of very much dissatisfied outboard motor owners behind them, will have become a thing of the past, and outboard motor owners will receive the same good service that automobile owners are now enjoying.

(Continued on page 74)

Every March the Great Southern Regatta is held on Biscayne Bay at Miami Beach. Come and see the races this year.



Among the important events is the race for the Miami Beach Trophy, representative of the Southern Free-for-All Championship.

It's Summer Now at MIAMI BEACH

AT MIAMI BEACH you can follow your favorite summer-time sport throughout the winter. For here in the semi-tropics it is always summer, never too cool and never too warm, - - every day is as pleasant and cheerful as a northern June day.

Come to Miami Beach now while the season's activities are at their height. Brilliant social functions and gala events of every sort hold sway from January to April. Spend your winter vacation at this paradise of tropical charm.

*Fishing
Boating
Bathing
Golf*

For hotel reservation address:

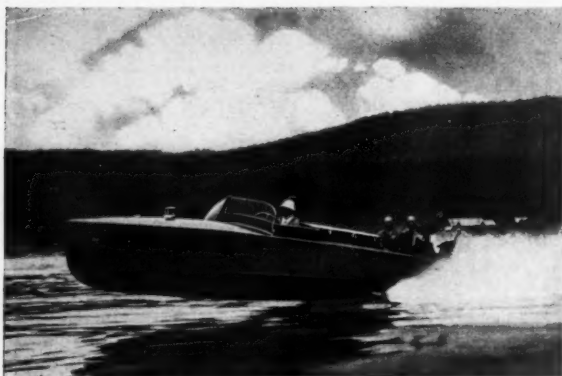
THE CARL G. FISHER HOTELS

Flamingo — Nautilus — Lincoln — King Cole — Boulevard
MIAMI BEACH, FLORIDA

*Tennis
Polo
Motoring
Pools*



Please mention MOTOR BOATING, 219 West 40th St., New York



Safe

ALL BOATS can be made safe from fire. Safe—when the engine backfires and flames break out. Safe—when alongside a dock, or far from shore with no dinghy in tow.

Make your runabout safe from fire. Protect your boat with the Lux System, and then motorboating will become an unadulterated pleasure.

The Lux System is now made in two new compact, light-weight units, specially for runabouts and sea sleds. These small equipments are similar to the larger Lux Systems that protect over 700 yachts and Coast Guard patrol boats.

Write for further information on the small Lux System—the only adequate protection for your runabout.

Walter Kidde & Company, Inc.
140 Cedar Street
New York

LUX

The Only Underwriters' Approved
Yacht Fire Extinguisher

Advertising Index will be found on page 172

Sanctioned Races

(Continued from page 9)

The granting of some so-called sanctions in the past by some associations or individuals has been a mere gesture to gain fame or publicity for this or that individual or association. It has meant nothing, that is, as we read their rules. We predict that the action taken by the American Power Boat Association will mean that some associations will revise their rules to make the granting of sanctions for important races mean something. It will also be a step toward the standardization of racing rules for all sections of the country and when this is done, we believe that the American Power Boat Association will be the first to offer support and co-operation. When that time does come, records will be real records and mean something.

What does an A. P. B. A. sanction signify? It signifies that the race or races are run under approved rules and racing conditions, that the course is of the correct length, that the boats are correctly timed and recorded and that the other requirements as set forth in the rules issued by the local race committee or provided for the race in question are lived up to by both contestant and race committee. In other words, an American Power Boat Association sanction protects the racing man, the committee and the public as well. In a sanctioned race, a contestant may appeal from a decision on a protest to the American Power Boat Association Racing Commission, a body of three men and one legal adviser, appointed by the Council of the A. P. B. A. to serve for one year. This Racing Commission also receives from the local committees records of all sanctioned races, measurements of the boats, charts of the race courses and such data and reviews and approves of all of these before the records become official. If approved, the records become part of the American Power Boat Association records and are made available for any future inspection or use. The times, speeds, records, etc., made by the winners of sanctioned races for each year are published in the subsequent issue of the A. P. B. A. year book. Surely such a central body to record and act on such data is worth while and necessary. No other motor boat racing organization has such a body.

In races not sanctioned by the American Power Boat Association, the Racing Commission has no jurisdiction even though the races may be run according to A. P. B. A. rules. Even in sanctioned races except as noted above, the Racing Commission does not interfere. It does not run or handle racing events. It has absolutely nothing to do with the rules or details of the race, all of these being left to the local clubs themselves. It appoints assistant measurers, timers and surveyors at the request of the local clubs to perform the functions which usually belong to such officers. These men file a report with the American Power Boat Association Racing Commission, as well as a copy of the times, measurements, chart of course, etc., which are made a part of the A. P. B. A. records after they have been duly signed by the assistants and certified to as being correct.

In an American Power Boat Association sanctioned race the course must be surveyed by a reputable engineer and he must swear to it that the length of the course is correct. He must also check the position of all buoys both before and after the races and file a statement that the buoys are in their correct position.

The boats must be timed by an assistant American Power Boat Association Timer and measured by an Assistant American Power Boat Association Measurer. These officials are appointed by the Racing Commission from persons qualified which are named by the local authorities themselves.

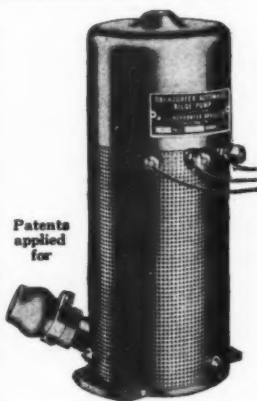
When local committees do not wish to follow the entire A. P. B. A. rules, they are given the power to adopt their own rules to best meet their local conditions, provided the approval of the Racing Commission is obtained in advance. This is as it should be as no set of rules could be devised to meet the many varying local conditions in all sections of the country. Thus local committees may adopt if they so choose their own rules for the kind of start, starting signals, direction of turns, classification of boats and power plants, number of heats, length of course, handicaps, division of classes and hundreds of other particulars. No rules of any other association give such powers to the local race committees.

In what other major particulars do the American Power Boat Association rules and those of the Mississippi Valley Power Boat Association differ? The M. V. P. B. A. has a race committee but no mention is made of its duties or powers. The A. P. B. A. has no race committee but has a Racing Commission whose duties and powers are clearly defined.

The Valley rules provide for only a "race horse" start. The American Power Boat Association rules permit the local committee to decide on the form of start. The Mississippi Valley rules require that the length of the race course shall be $2\frac{1}{2}$

(Continued on page 76)

There's An Oberdorfer Pump For Every Marine Use

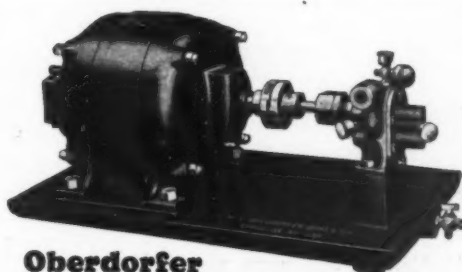


Patents
applied
for

Operates from a 6 or 12-volt ignition or lighting battery. State voltage desired when ordering.

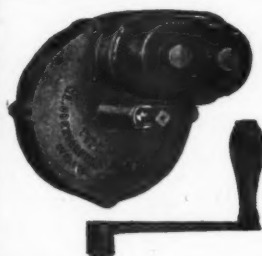
OBERDORFER AUTOMATIC BILGE PUMP

EVERY first-class boat should be equipped with an Oberdorfer Automatic Bilge Pump, not only for convenience but in case of emergency. It is small and compact and does the work of a much larger and more expensive pump. A dual switch near helm provides constant or automatic action as desired.



Oberdorfer Giant, Junior and Little Giant Motor Driven Outfits

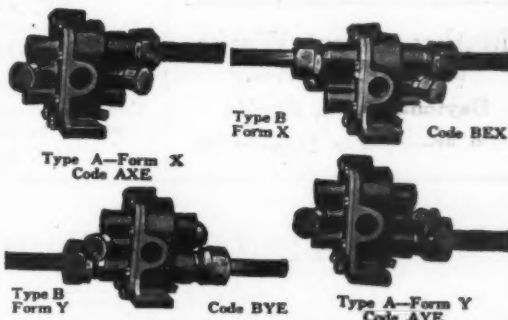
EFFICIENT all purpose pumping outfits capable of performing many important duties on board a boat. For galley and lavatory water supply, bilge pumping, deck flushing, fuel pumping and for emergency fire use. Available with 1/6, 1/3 and 1/2 h.p. motors with capacities up to 423 gallons per hour.



OBERDORFER HAND BILGE PUMP

For smaller boats where electric current is not available.

YOU don't need to fuss around with pails or a plunger pump when you have an Oberdorfer Hand Bilge Pump installed. Just give a few turns of the handle and your boat is soon pumped out without fuss or bother. Handle is detachable and can be stored in locker when not in use. Capacity seven gallons per hundred revolutions. Made of non-corrosive metal.



OBERDORFER BRONZE GEAR CIRCULATING PUMPS

IF the circulating pump on your motor needs replacing you can get quick service if you order an Oberdorfer Pump. Most dealers carry complete stocks in all standard sizes, types and forms to fit any marine motor.

Send for Bulletin "D"

M. L. OBERDORFER BRASS CO., Syracuse, N. Y.

Oberdorfer Pumps

Please mention MOTOR BOATING, 120 West 40th St., New York



FLORIDA



MELBOURNE

**MELBOURNE
INVITES
YOUR PARTICIPATION
in the
MARDI-GRAS
and
WATER CARNIVAL
February 14-15**

Write Chamber of Commerce for Details

A HOME in Melbourne assures convenience of location on the highest elevation south of Jacksonville. To those who enjoy field and water sports, we suggest a survey of our offerings. We shall be glad to show you homes or home sites.

A. M. REED
with CHAS. H. ROSE, Realtor
Melbourne, Florida

DAYTONA

Mathews Boat Works
DONALD RAIE, Prop.
Daytona Beach, Florida
300-Ton Ry.—Machine Shop—Gasoline

EAU GALLIE

**Yachtsmen Will Find Newly
DREDGED CHANNEL Into
EAU GALLIE HARBOR**
Government Light Marks Entrance
Eight Feet at Mean Low Water
WRITE CHAMBER OF COMMERCE
FOR ANY INFORMATION DESIRED

**EAU GALLIE BOAT BASIN
IN
EAU GALLIE HARBOR
IS
EQUIPPED WITH TWO SETS OF
MARINE RAILWAYS, DRY
DOCK, MACHINE SHOP,
STORAGE AND SUPPLIES**

PALM BEACH

**W. H. HOYT
RIVIERA BOAT WORKS**
Designers and Builders of
YACHTS, SKIFFS AND TENDERS
General Repairing, Hauling, Storage
Northern Prices

ALBA COURT INN

A Home For the Traveler
Every room with running water. Private
baths. Two squares east of Dixie Highway.
One square from yacht slip. One mile to
New Smyrna Beach, finest on the ocean.
A. B. FARNSWORTH, Manager

ST. AUGUSTINE

THE MONSON HOTEL
On Matanzas Bay
Good Anchorage: Excellent Accommodations for Yachting Parties
CHAS. E. YOUNG, Prop.

Outboard an Excellent Mud Hog

The unusual experience of S. D. Mobley of the Standard Printing Co., Columbus, Ga., is graphically recounted in a letter he recently wrote the Evinrude Motor Co. The portion of his letter covering the matter follows:

"Last Saturday I put this motor on my boat and went down the Chattahoochee River from Columbus about 18 miles. Going down, the motor ran perfectly. We camped on the bank of the river and started back Sunday morning, and we later found out that the Goat Rock Dam, a dam north of Columbus, closed their flood gates Saturday night in order to try to save up some water. This made the river drop several feet and left it so that the bottom of the motor would touch the river bottom in most places. We had to get back to Columbus, so we started out. The motor was constantly hitting the bottom. We broke 2 or 3 propeller pins, but in a few minutes had new ones in, and went right along. We crossed one mud bank with the bottom of the motor dragging in the mud. This soon stopped the water pump and heated up the motor, but we stopped and cleaned the pump out, and went right along.

When we got within about 2 miles of Columbus there was no place in the river where the motor would not drag the bottom, but the motor plowed right on through mud and all. We had to stop several times to clean out the pump, but each time she would start right up again. When we almost reached the dock, the propeller hit something and tore off two blades. Of course we had to run very slow, but this motor pulled us in for a pretty good distance over a very shallow river with a boatload of camping goods and four people with only one blade left on the propeller. I can truthfully say that of all the motors I have had experience with of any description, and including automobile motors, which are quite a few, I have never seen a motor perform as this one did under such severe handicaps and disadvantages. I don't believe now I would be afraid to go anywhere with my Evinrude Speeditwin."

A New Little Engine

The Anderson Engine Company of Chicago have recently brought out a new engine model which is built in three different sizes. This is a four cylinder unit in a 12 to 18 h. p. size, and a slightly larger 20 to 35 h.p. size, as well as a six cylinder machine of the same general type, rated at 40 to 60 h.p. These engines are up to the minute in every way with full force feed oiling system, and an enclosed fly wheel, reverse gear, and valve mechanism.

A Back Rest for the Fisherman

A convenience for the fisherman or sportsman who uses a small boat of the row boat type is a folding back rest which has been developed by B. F. Peterson of Minneapolis, particularly to supply ease to the user when in the boat. Pete's back rest, as it is called, is made of steel, and will fit on any seat. It is adjustable to three positions, and can be set at the angle which the user considers most comfortable. The elastic cross pieces form a wide back, making it a comfortable rest. The width is 17 inches, and the weight only five pounds.

(Continued on page 164)

Yard and Shop

(Continued from page 70)

To Distribute Chris Craft

The Marine Equipment & Supply Company of Philadelphia have been appointed distributors for Chris Craft runabouts in the territory generally embracing southern New Jersey, Eastern Pennsylvania and the State of Delaware. David S. Bechtel, who formerly handled this distribution in Philadelphia, is to take charge of the Boat Sales Department for this company.

A Big Order

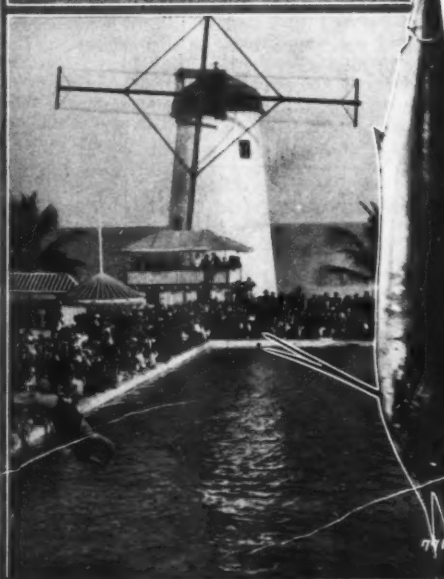
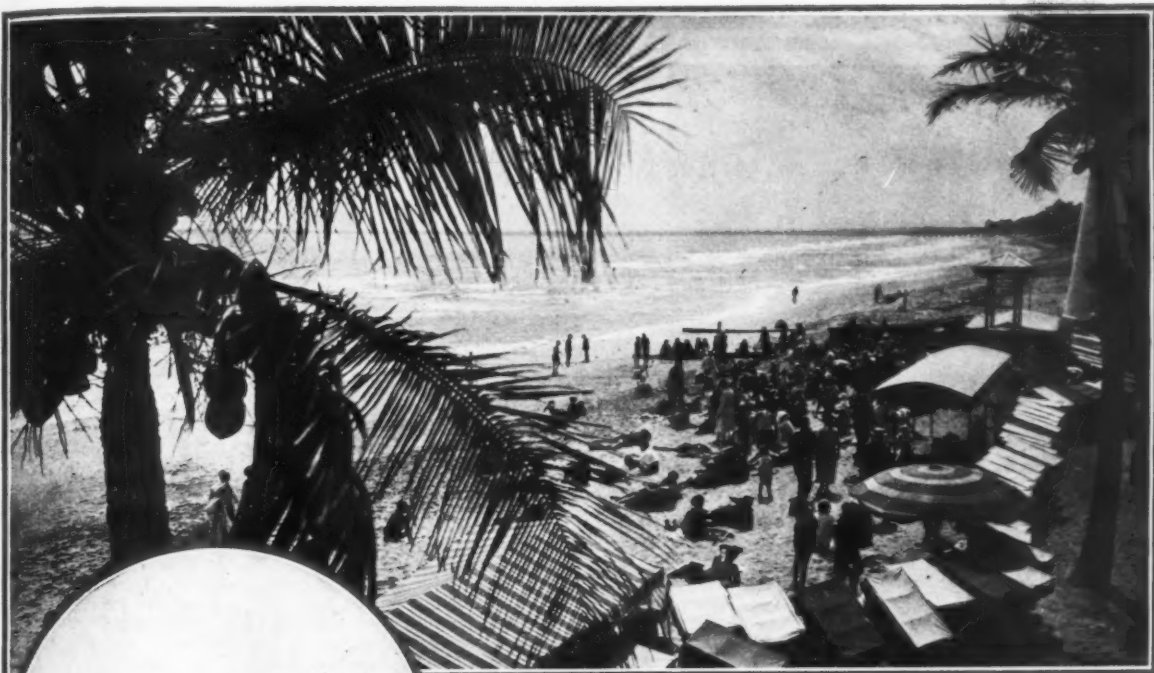
Perhaps few people realize the magnitude of production and the tremendous growth which has occurred among some of the larger boat builders in this country. Jay Smith, President of Chris Smith and Sons Boat Company announces their organization has just placed an order with the Indiana Quartered Oak Co., for one million feet of mahogany—the largest single order ever placed—not only in the boating industry

but in any industry. This represents a cash transaction of a quarter million dollars. In running board feet there is enough mahogany to reach 190 miles. There is sufficient lumber in this order to produce more than half a million radio cabinets or to build 1650 mahogany Chris-Craft runabouts.



Pete's back rest for small boats

Advertising Index will be found on page 172



MIAMI BEACH

IS

Calling You

TO the greatest vacation you ever had . . . To one continuous round of play, sunshine, happiness, and health at the world's winter playground . . . To seven miles of palm-shaded ocean beach, fanned by Gulf stream breezes, where bathing in January is as joyous as in June . . . To all forms of summertime sport—golf, polo, tennis, canoeing, sailing and fishing, etc. Come to the Annual Regatta on March 16th and 17th.

*For information regarding hotels,
apartments, homes, or business
opportunities, address*

CHAMBER OF COMMERCE
MIAMI BEACH FLORIDA



Please mention MOTOR BOATING, 110 West 40th St., New York



When You Come to the MOTOR BOAT SHOW

(January 20-28, 1928)

Stop at The

ROOSEVELT

be near everything!

MAKE the most of the time you will spend in New York during the Motor Boat Show. Let every hour yield its measure of enjoyment. To assure this—stop at The Roosevelt.

From a standpoint of convenience The Roosevelt is right in the heart of things—a few minutes' walk from the Show itself—and just as few from the theatre and shopping districts.

Its smart metropolitan atmosphere—its gracious service and fine cuisine—will add to the pleasure of your daily rounds. While the Grill, with Ben Bernie and his famous ROOSEVELT Orchestra making merry during dinner and supper, will heighten the zest of your night-time pursuits.

THE ROOSEVELT

Madison Ave. at 45th Street
NEW YORK, N. Y.



EDWARD CLINTON FOGG
Managing Director

Sanctioned Races

(Continued from page 72)

miles and that each race shall consist of two heats and that turns shall be to the right. The A. P. B. A. rules again permit the local conditions to decide these points. Quite obviously it is unfair to say that the course must be $2\frac{1}{4}$ miles long and only two heats. There are many locations ideal for racing where it is a physical impossibility to have a $2\frac{1}{4}$ mile course. Many clubs prefer only one heat for a race, others 3 or more heats. The American Power Boat Association rules allow this as well as a choice of direction of turns. Also consider the absurdity of a $2\frac{1}{4}$ mile course for express cruisers, a long distance ocean race and a 24 hour contest. Well, these would be required by the Mississippi Valley rules. As a matter of fact many of the sanctions granted by the M. V. P. B. A. this year have been on courses of other than $2\frac{1}{4}$ miles and other than 2 heats which is in direct violation to their rules.

Again the Mississippi Valley rules state the control of all boats shall be vested in the Association Race Committee, a particularly unfair and unworkable rule as the Association Race Committee is seldom, if ever, present at any except the M. V. P. B. A. annual regatta. The A. P. B. A. rules give over to the local race committee the entire handling of all details in connection with the events. They provide that an appeal may be taken from a protest decision made by the local committee and reviewed by the American Power Boat Association Racing Commission. The Valley has no such provision.

On the question of Prizes, the Valley Rule reads. "Custody of all cups and trophies and money to cover all the cash prizes, together with the amount necessary to cover the expense of the Race Committee in conducting the races, to be turned over to the Treasurer of the Association by the morning of the first day of the regatta." The American Power Boat Association does not interfere with the local race committees in the matter of prizes, neither do they require that expenses be paid to any of its officers.

The rule of measurements in the Mississippi Valley rule book reads. "All boats must be measured for the cylinder dimensions by the Official Measurer of the Association and all measurements must be reported by him to the Race Commission by noon of the day of the Races." Yet the Association has no Measurer nor do their rules or Constitution provide for one. Therefore, it is hard to see how this requirement could be carried out at a sanctioned race.

There are other differences in the rules which make the granting of sanctions by the two associations for the same race, a mere joke or meaningless gesture. In the outboard classes the American Power Boat Association rules require stock motors, mufflers and amateur crews—the Valley rules are silent on these points. The A. P. B. A. rules require inspection before the race and a meeting of contestants to decide eligibility and similar matters in advance of the outboard races. So taken all together, it is the purpose of the American Power Boat Association to get a workable set of rules and conditions so that records made in racing events will mean something, both to contestant and the public.

Lucette Threads the Stockholm Skerries

(Continued from page 48)

less than three miles—and there was no use of guessing where we were. The hour was ten-thirty, and while objects on deck were clearly visible we felt that we could be sure of sighting land more than a mile away. Under these circumstances the only safe course was a seaward one—still guided solely by the direction of the waves—and this we sailed for twenty minutes. Slowly the compass recovered its stability, and presently we felt that while it couldn't actually be trusted it was better than nothing at all.

And there when we were wondering whether Landsort would remain dark all night we caught its welcome flash. Matters which had seemed chaotic became normal and we breathed sighs of relief in solo and in chorus. But still we plunged on to seaward. According to the light list Landsort should show beneath its fixed white and flashing red light a supplementary light of smaller radius divided into red, white, and green sectors. At first only the fixed white light with its alternating red flash could be seen. Presently we decided that we were running outside the radius of the lower light and changed course to head for it. Now the wind was on our quarter and we flew. Immediately a fixed red light appeared, and we altered again to eastward to leave the red sector and enter the white. A moment ensued when we were in the transitional arc and the low light looked not quite red and not quite white. Then it clarified like a red chemical touched with a drop of acid, and we were in the white sector, running again with the wind astern.

(Continued on page 78)



A NEW UNIVERSAL FACTORY ...and what I think built it

I AM pleased to announce the completion of the new Universal factory—a brand new structure from stem to stern—designed and built in every detail to be a model among the world's finest devoted to engine building.

Sixty thousand feet of floor space, individual motor driven precision machinery of the latest type and an experimental laboratory in which motors are tested under approximate working conditions equivalent to years of field service are but a few of the features of our new home. In addition to the new factory, Universal has also enlarged its foundry—controlling the quality and cost of its castings as in the past, but enlarging production facilities to meet the growing demand for Universal motors.

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Fifth, letting the soundest business principle we know of dominate every relation with our customers—the Golden Rule.

Lastly (and this is all reasons in one), are the thousands of Universal owners who liked these policies and who purchased because of them. To these and our other friends all over the world, we pledge our new plant to bring greater glories to the name "Universal".

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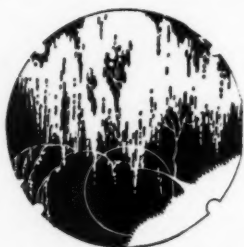
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Lucette Threads the Stockholm Skerries

(Continued from page 76)

A red flashing buoy showed up and we steered for that, leaving it to port, while pilot boats, cruising off the island, tacked toward us and decided that we were in too much of a hurry to stop. Past Landsort we tore at midnight while Paul and the Major kept the deck, and then past Viksten, the only other island in the vicinity whose light was lighted. And then at two day broke (it had been dawning since twelve-thirty) and P. L. and I came on to watch the new morning and its dying wind.

A lovely sail we had of it in the early morning light, up a channel that seemed simplicity itself compared with what we had seen. As we came inside the barrier islands the sea calmed, and farther up as we drew under the lee of other islands the wind left us and we ghosted on even keel, with barely enough way to carry us to the next puff. But this insular sailing—now a slant and now a drift—was too tranquil to last. At 2:50 the sun had showed above the clouds and decided that it didn't like the look of things, and at five it shut off the wind and turned on the rain.

Then it was motor, motor, motor past Dalarö, a summer resort and our first indication that these fascinating skerries are enjoyed by yachtsmen; along the edge of Jungfru Fjord and into Ingarö Fjord. Down the rain poured, and in it Jim stood as bow lookout until told that we should sight no more buoys in Ingarö Fjord. Then at seven o'clock we came to another narrowing of the ways, and Jim appeared once more and called the buoys as they came.

Through the strait into Baggens Fjord we passed and saw ahead of us the hotels and landings of Saltsjöbaden. We were still ten miles short of Stockholm, but at Saltsjöbaden is where many of the Stockholm yachts are moored and this was our ultimate destination. Still in pouring rain we rounded a sharp point of land, avoiding a swimming enclosure handsomely marked by two flashing buoys, and idled among the local yachts looking for an empty berth or awaiting a welcoming hail.

The hail came and we were invited to come alongside a wooden pier. Still carrying our way we drifted in, cast lines ashore and went astern on the propeller. We had made our most difficult run without mishap and had wound up the outward leg of the voyage by covering a hundred miles in less than twenty hours. In three weeks and two days we had come 950 miles from England, and the next time we started out we should be homeward bound. The rain ceasing momentarily, Anthony poked his head out of the forecabin hatch. Although still swollen his neuralgic face looked decidedly better. Hadn't someone said something about going home?

(To be Continued)

Down Borneo's Great Barito

(Continued from page 50)

the paddling distances between frequented points. They have linked the Martapoera with the Barito at Bandjermasin, and have tapped onto the Negara from the Martapoera at a point some fifty miles above Bandjermasin. They have linked the Barito with the Groote Dajak (Big Dyak) by a fifty-mile ditch leaving the Barito near Marabahan. And, they've hooked the Poepeloepetak river to the Barito and the Groote Dajak by ditches 22 and 31 miles in length. The mouths and lower ends of no less than 60 different rivers discharging into the Java Sea from southern Borneo have been joined to each other by canals by these so-called simple minded natives. Lacking the engineering skill which we know in the construction of locks, they have actually developed canal building to the point of handling boats over varying water levels. They have done this by digging their canals on two or more levels, and placing earth dams at the ends to hold the water. Over these dams are sloping ramps of ironwood, liberally greased with palm oil. A proa weighing two tons or more is nosed up onto the greased ramp. Then, a sufficient number of orange (men) get hold of the thing, and skid it over the ramp onto the next water level—up or down.

By taking the short cut through the native canal into Bandjermasin, we tied up in front of the Grand Hotel Bandjer at 4 o'clock in the afternoon—two hours ahead of the Negara which had followed us down the river from Marabahan. The Negara had nearly twice our speed, but we had started four hours ahead of her. She also had to run 28 miles further than we did, down the Barito, and back up the Martapoera to get into Bandjermasin. We arrived in Bandjermasin, tired, hungry, dirty, sunburned, and my shoulder still very lame from the punishment it had received from the Dutchman's elephant gun. Once in a European hotel, however, with baths, clean clothes, a good Dutch dinner, and a sip of the Dutchman's favorite beverage known as Jan Genever—(Dutch term for John Barleycorn, meaning Bol's Geneva Gin)—the whole world—even Borneo, seemed

(Continued on page 80)

Apco Mossberg Corporation
Attchboro, Mass.
 November Fourteenth
 1927

Mr. Carl S. Matthews
 The Matthews Company
 Port Clinton, Ohio

Dear Mr. Matthews

You will, I know, be interested to know that I have sold the "38" I have been using for the past three years, but the interesting part to you is the fact that after three seasons' use, I sold the boat for \$8000.00, which - consider remarks above, to say the least

I should feel happy, I suppose, but because "good friend" somehow I feel as if I had lost a good friend, because "good friend" is the best definition I can think of for my "38" which gave me so much pleasure at so little cost

I say not get back into the boating game for another year, but you can rest assured that if I do, nothing short of a Matthews will be good enough for me

Your many courtesies have contributed much to the pleasure of Matthews' ownership and anything I can do to contribute to your success will be done gladly as a part of my obligation to an organization that is doing much for yachting, by building quality and value into its products

I hope to see you in New York at the show, and in the meantime, with best personal regards, I am

Sincerely,

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All the finer qualities which have so evidenced themselves in these boats in the hands of hundreds of actual users have been retained—the always-spoken-of galley, the spacious, deep spring upholstered berths, the extraordinary dresser, lockers, and storage spaces have all been kept and enhanced by many added details.

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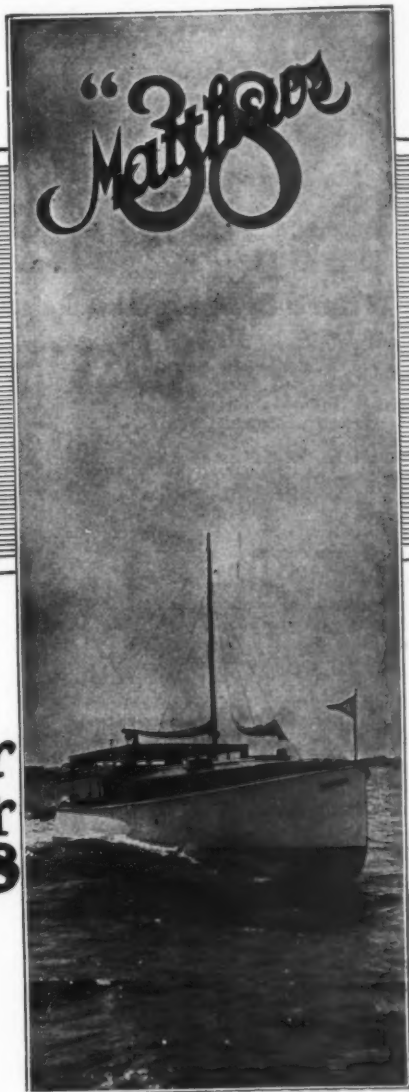
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MANY a private boat furrows its way through the Greater Palm Beach inlet these days—winter-bleached men of the north call hearty greetings to more fortunate friends already tanned by a tropical outdoors.

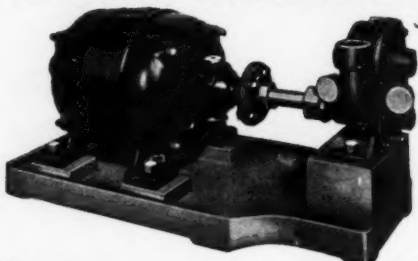
Some take their place in the exclusive Palm Beach colony; others find equal enjoyment in the comradely welcome of West Palm Beach, where living costs are low. Golf, tennis, fishing, boating, bathing—these are just a few of the recreations which thousands in West Palm Beach are enjoying now.

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Down Borneo's Great Barito

(Continued from page 78)

brighter. Sitting around a table in the lobby in the cool comfort of an electric fan, and with the conversation going cross fire in English, Dutch, French, and German; we all agreed that we wouldn't have missed the jaunt down the Barito for anything—an experience to remember forever.

Borneo may still be the home of many wild men, but the thrifty Dutchmen are gradually taming the wild men, and putting them to work for wages in the gathering of rubber, tea, coffee, petroleum, gold, silver, copper, coal, tropical hardwoods, and many other valuable products. The jungle is slowly, but surely being beaten back, stripped of insects, wild beasts, and disease; and converted into plantations, and other sources of wealth for Holland.

Holland is growing rich from her East Indian colonial trade. Borneo, and the other colonies are an almost untouched treasure house of natural resources, which will be in full swing when other important sources are exhausted. And, speaking of Holland,—that pigmy of Europe—the tail that wags a dog of a colony equivalent to half of continental Europe without Russia—she's doing the job, and making a success of it. It's a marvelous example of what thrift, energy, and intelligence can do. Whoever it was that said it, said a mouthful when he uttered that oft-repeated quotation—"It's hard to beat the Dutch!"

Stamford Looks After the Boats

(Continued from page 20)

moreover, gave the city an option on his property and the city now owns it, and will soon plant grass on this new piece of terra firma and add it to Halloween Park. Meanwhile the aforesaid natural basin has been converted into an excellent anchorage for yachts perhaps a quarter of a mile long and from fifty to one hundred yards wide with a depth of 10 to 12 feet at low water. The creek before the Muzzio yard had been not only deepened but widened, so that many pleasure craft find mooring space here. Needless to say the business of the boatyard has increased considerably. As the city was doing a good turn to all the private interests concerned in this transaction the city was able to make an excellent deal for its dredging, which cost only \$5,000 instead of the \$15,000 which had been expected.

The channel outside the creek toward the steamer route up the sound has been carefully buoyed, but there is still one spot with a depth of only three feet at low water. It is Mayor Phillips' hope to have this dredged within a few months to a depth sufficient to allow yachts of considerable draft to pass in and out at any tide.

One of the chief obstacles to the creation of this new yacht harbor for Stamford was the bridge which crossed the creek. This supported pipes carrying gas to the bathing pavilion. Mayor Phillips persuaded the gas company to lay a large main with a small trap pipe underneath the bed of the channel. There was led to the shore a small pump off pipe from lower trap pipe. As soon as these pipes were laid the bridge was closed to traffic and later torn down, thus a way being cleared at all times for the ingress and egress of yachts. Pedestrians and motorists have no difficulty reaching the bathing pavilion by another road on the north side of the yacht basin.

Even had Mayor Phillips not been an enthusiastic yachtsman himself he might have accomplished this great public benefit because of his interest in the welfare of the people of his city. But he did not stop with the list of improvements just cited. He was not content until he had organized the Halloween Yacht Club, using an old boathouse on the western end of the inner dredged basin as a clubhouse. The dues in this already active and growing organization are only ten dollars, a fact which aids not a few of the city's citizens with only very modest bank accounts to indulge in the regal sport of yachting.

Virtually all the mooring space is already taken up in Stamford's new, auxiliary harbor and eventually the use of mooring spiles or slips will probably be resorted to. Already the north bank of the inner basin is studded with small stakes to which are moored the skiffs and other small outboard-motored craft of Italian fruit venders and other honest, saltwater-loving members of Stamford's humbler citizenry. To the eye of the man who loves sport for its own sake (and to this type belongs both Mayor Phillips and Commodore Winthrop A. Clark of the Halloween Yacht Club) the presence of such little packets is no less desirable than that of the Mayor's husky motor cruiser and the Commodore's handsome green auxiliary schooner.

American life will be enriched by anything which brings healthy sport to the masses of our people. This country would greatly profit by the development of more public servants like Mayor Phillips and more recreational organizations like the Halloween Yacht Club of Stamford, Connecticut.

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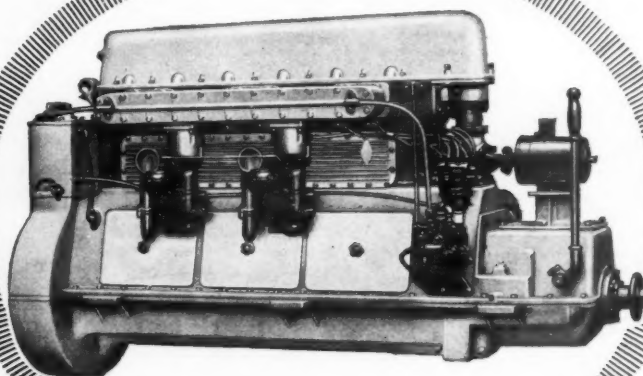
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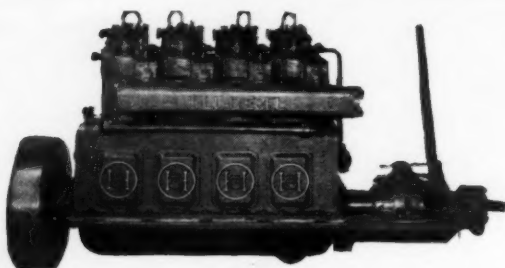
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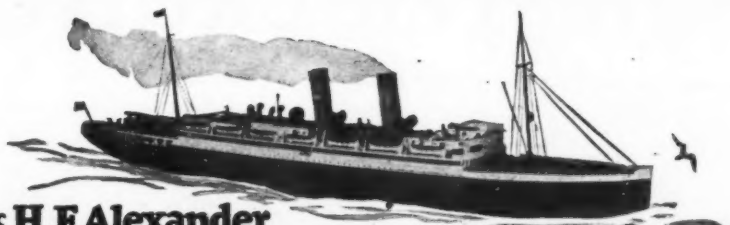
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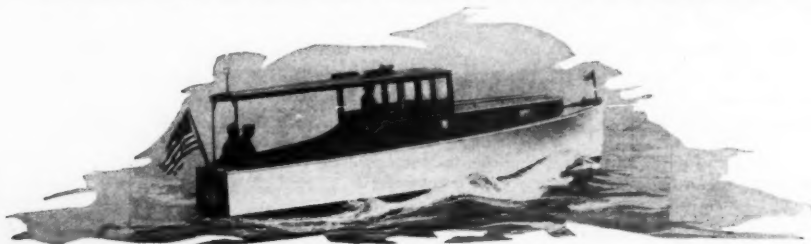
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Cruiser—sleeps 4 and has
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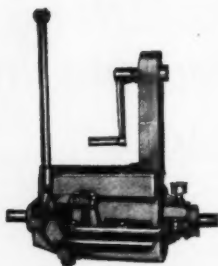
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The New ZENITH Marine Carburetor

The new Zenith Marine Carburetor is the **modern marine carburetor** because it is especially designed and built to meet the exact and exacting requirements of the power boat engine. Pitching, tossing, quick turns, etc., have no effect on its efficient functioning. The boat can tip 50 degrees fore or aft, or 40 degrees sideways without its operation being in any way disturbed.

The power boat owner cannot afford to economize on safety. Because of its perfect functioning under all conditions the Zenith Marine Carburetor is a safe carburetor.

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The New Zenith Marine Fuel Filter

—removes every last particle of foreign matter from the fuel. The fineness of the filtering space is equivalent to a 120-mesh wire gauze. Can be taken apart, easily cleaned, and put together with the fingers—no tools necessary.

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THE gob in the picture offers you outboard motors, a number of small boats and other articles, from the Willis Line of marine equipment.

However, it would take more than a thousand gobs to carry all the useful, necessary things for yachts, yachting, yachtsmen, and other seafaring men which Willis offers. Frankly, there is nothing missing from a hawser to a compass. Many of these interesting items are on exhibition at the Motor Boat Show, N. Y.

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Used by the Best Boat Builders

KUHLS' ELASTIC SEAM COMPOSITION is the standard material for filling the deck seams of motor boats, yachts and steamships. It is widely used by boat builders, naval architects and the U. S. Government.

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On sale at the leading marine supply stores,
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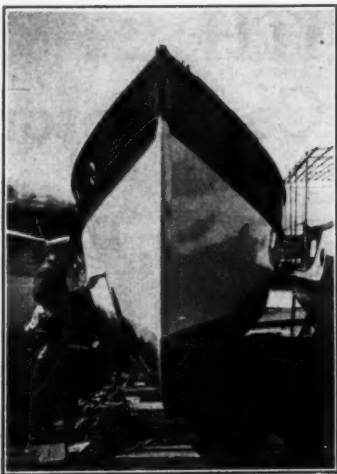
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Yacht White**
The most practical finish for a yacht. Dries with a rich, velvety finish and is absolutely permanent. Can be washed and scrubbed.



**"New Jersey"
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An absolute protection against the barnacle, teredos and vegetable growth. Very smooth and provides a fast racing bottom.



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The most satisfactory paint for use on spars, decks, floors, stairs, topsides and general woodwork. Used on canvas, wood or metal. Not affected by salt water.

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Mixed Paint**
A full gloss, pure linseed oil paint. Ideal for rowboats, dinghies, outboard motor boats, etc. Excellent for yacht clubs and outbuildings. Protects as well as beautifies.



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New Chrysler Imperial
Marine Engine

February Issue

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Portable
(On the Ice in Five Minutes)
Carry on Automobile
Light — Strong
Carries Four People
Natural Finish
Wamsutta Yacht Duck
Cast Iron Runners
Inexpensive

Warhawk Co. 208 Rock Street
Fall River, Mass.



BREWERCRAFT—A Real Family Boat



SPECIFICATIONS: Length, 30 feet. Beam, 7 feet 9 inches. Draft, 2 feet. Motor, 100 H.P. Kermath.

CONSTRUCTION: White Oak frames, keel, garboard, sheer, rubrail, coaming and covering board, transom, and hackmatack stem. Full length white cedar planking (three-quarter-inch thickness).

Price and further particulars upon request.

BREWER DRY DOCK COMPANY Est. 1899 MARINERS HARBOR, STATEN ISLAND, N. Y.

TURTLEBACK cedar deck. Entire boat copper fastened with brass hardware. There is one 70-gal. heavy gauge copper gasoline tank and copper exhaust piping. Two galvanized iron air tanks, one under forward deck and one under after deck make this boat unsinkable. The single cockpit accommodates 18 persons comfortably. All seats covered with Russialoid Kapok cushions. This boat is of the round-bilge type and with 2 feet freeboard amidships you are assured of a dry boat.

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MOTOR BOAT SHOW



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JAN-20-28-1928



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The Twenty-Third Annual
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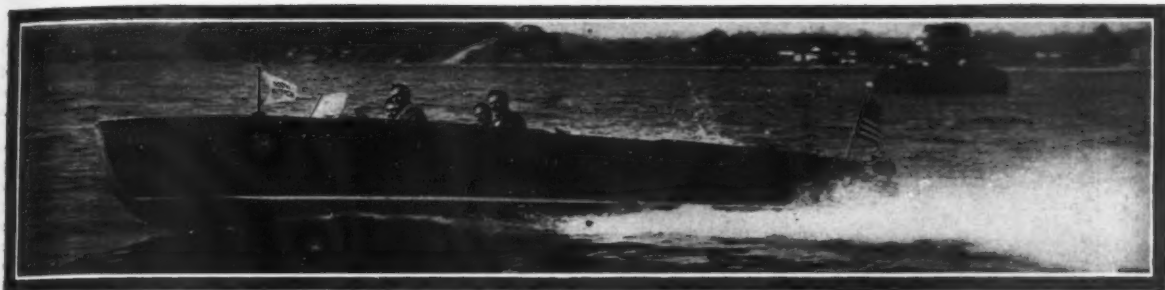
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America's finest runabouts
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Fast, roomy, comfortable, well built
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You can see these boats at the Show January 20-28. You can see them at our
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**Richardson
Master
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Designed by
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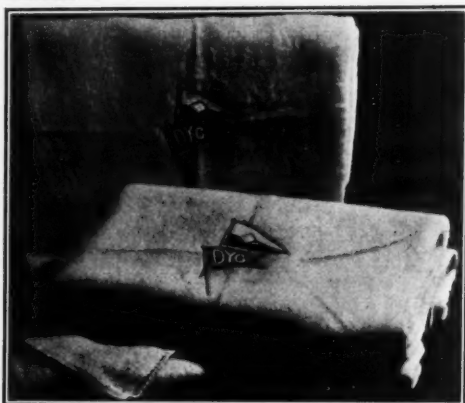
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Luxurious Blanket Cruising Comfort

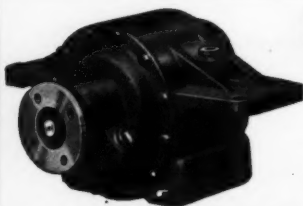


Soft, fluffy, light weight but warm Blankets from Holland. Made of pure wool, 70 x 84 inches. Peach, Nile Green, light Blue, Rose, Orchid or Yellow - \$13.50 each
Embroidered with owner's and club signals - \$17.50 each

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Matthews-Blood Marine Gear Drive

Adds Speed and
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For pleasure and commercial craft, 30 to 70 feet—capacity up to 125 H.P. at 1700 R.P.M. of engine. Absolutely quiet, ball bearings, water cooled, ratio 1.75 to 1.

THE MATTHEWS COMPANY
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DOMAN BULL DOG MARINE ENGINES like the bull dog himself

Never give up!

FISHERMEN!

This is the engine you have been wanting. A trial will convince you. On the market more than 38 years. 1, 2 and 4 cyl., 5 to 60 H.P., 4 cycle.

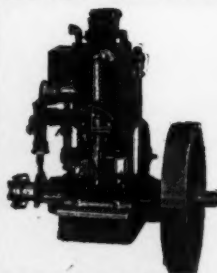
Money Back Guarantee
Liberal Discount to Dealers

Universal Products Co.

Doman Engine Division

Oshkosh

Wisconsin



Model K—5 H.P. Bull Dog

Lookit!

(Continued from page 24)

alone has done as much. For Dan, there was the thought of mosquito flotillas, the dew beaded decks, the chill that creeps in from the sea after the sun is gone. The life proper to night is not so solitary.

A man does miss the "breathing he's used to hear, and the head on the thick of his arm." To be captain of even the smallest and most untoward packet of joy carries care with it, so Dan, in his mind's eye, visualizing the hardships of being night bound without gas, steered grimly. His tiller he tucked under his arm. The boat's nose sometimes pointed south and sometimes south by east. She steered badly, yet when one got used to the eccentricities of the engine, she was a comfortable craft in which to loaf down the bay, in the warm sun, with the wind astern.

When Dan had stood the gaff as long as he could, and the distance from home seemed half way round the world, and nothing to choose either way he went, he sounded Dick.

"Let's try them here."

"I have you," said Dick, and yanked loose a wire at the coil, lazily shoved the anchor from the canvas covered deck, where it had rested, well caked in the clay that had come aboard with it, and sprang suddenly to a life of demoniac zeal over the bait board. In great glee he dissected the first shedder crab, put his line over, and when his cork bob floated down, with the wind and tide both to carry it, he settled back to watch, oblivious to everything else in life.

As for Dan, now that they had gone a fishing, he too forgot the engine, forgot the rising wind and the ever crazier pitching of the boat. She climbed the steep Barnegat chops only to fall as swiftly, and as the day grew, so did the wind, until they were fishing with their rods in one hand, the other gripping the gunwale to keep them from being slid from the thwarts.

Dick had the first strike, a tide running weak, as long as you wish, which ran, and broke water, and took a deal of landing. Weak fish—sea trout. Ah, the market place beats us there, for they are trout in their gameness and sagacity, not to mention their strangely weak mouths, so easy to the hook, so hard to hold them by without tearing out. Dan got the second fish, and Dick the third, about five pounds of speckled gameness, running even when along side the boat, and staring the landing net in the mouth.

Then there were no more bites, and the tide grew and the wind, while the boat shouldered her way down into the seas until they foamed along her gunwales and occasionally slopped over. She was a bit straight over the top sides, with no trace of a heaven pointing sheer. By common assent they got up the anchor, stowing it on the slippery canvas covered deck, still caked with the mud that had come aboard in the early morning. The boat immediately fell off into the trough, rolling unmercifully. Dan started the engine a dozen times and a dozen times he had to wreck the wiring system in order to stop her, for she ran always backwards.

"Some Laughing Jackass," said Dick, "try starting her backwards, and if she's what she seems to be, we'll homeward fly."

Dan tried and above the wind, and the rush of breaking water, came the steady chug of the outwitted motor and the water was no longer crowded upon the face of the transom. She had started forward.

"Huh!" grunted Dan, very red in the face, and all hot and bothered.

The battered white hull brought her head up to the seas and the initial shower of spray swept her from stem to stern. She was as wet as a square rigged diving bell, but Dan held her to it and she crossed the openness of Cedar Creek and got under the shelter of Rum Point where the seas were smaller. About then, having no further fear of the wind, they began to consider their gas problem in its least engaging aspects. For some reason the Laughing Jackass seemed to run always more slowly, as if to emphasize the shortage of fuel. The engine ran steadily, but the good boat drove like a log and her bow wave dwindled until even in the calmer water it was not more than a ripple.

Suddenly Dan choked and gurgled. His eyes stood out on pegs, every vestige of good humor gone from his face. He nigh died of anger.

"Lookit!" he got out at length and pointed a stubby finger at the forward deck.

Dick, following the gesture, could see nothing but the bitter end of the anchor line jammed on a cleat and a trickling flat of mud washing slowly overboard. He followed the trend of the line and then realized why they were going slower and slower, why Dan sat rigidly at the tiller, speechless, and well nigh apoplectic.

(Continued on page 100)

Coming Gar Wood's

Latest
CREATION
in
Fast
Runabouts

200 H.P.
MOTOR

45 Miles per Hour

Wide Range of
Color Combinations

This new boat is
Gar Wood's greatest
achievement in
medium size express
speed runabouts.
Watch for details
in February
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On exhibition, Space J, New
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January 20th to 28th

GAR WOOD, INC.
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Inspection, Commodore!

YOUR boat: Pass her in review, Sir! Is she safe and seaworthy? Everything A-1 and Bristol fashion for 1928? Any cracked ports, derelict ventilators, worn-out parts, unsightly brass work? Won't you enjoy next season more with a new stuffing box; a new intake strainer; a steady, reliable compass; an Autochime whistle?

And your new boat? Plan her from stem to stern with Wilcox-Crittenden fittings.

Able, dependable, marine fittings with an 81-year record of success, command your attention, Sir. In any water or weather, masters of yacht, workboat, or dinghy find W-C modern equipment . . .

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Clam Shell Ventilators
Of polished brass, strongly and scientifically designed to admit air.



Manhole Deck Plates
Watertight, solid or grated, substantial, perfect plates in brass or galvanized iron. Sizes 10 to 20 inches.



Inside Port Lights
In brass only. Easy to install, provides maximum light and air; glass clear and heavy plate. Patented snapping permits instant removal of screen with thumb and forefinger.



Anchor Andirons
For your "cabin" ashore. Delightful aids in cruise retrospection and anticipation. A happy gift for your boating friends. Per pair, \$15.00. Height 17 in., length 24 in.

"Sea Craft Suggestions and Supplies"

offers you many a pleasant evening's reading this winter. Subjects authoritatively covered include steering gear, ground tackle for mooring or cruising, correct use of flags, boxing the compass, knots, splices, and bends, etc. The Handbook of the Amateur Mariner. Sent on receipt of 50 cents.



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Chart your course now for our exhibit at the 1928 National Motor Boat Show—New York, January 20-28. You will find us at Booths 19-20, Third Floor, in front of elevators.

AVOID THE BECKONING REEFS OF INFERIOR FITTINGS



A New Banfield Salon Opened at MIAMI in the Hotel Everglades



TO complete the circle of Banfield Salons located at strategic boating centers, we announce the opening of a permanent display and sales office in the Hotel Everglades at Miami, Florida. Here visiting yachtsmen can inspect at their leisure the famous Banfield "32," the cruiser which outstrips all others in popularity with sea-going yachtsmen.

Immediate Deliveries

100 H.P. KERMATH
Speed, 18-20 M.P.H. \$6150.00

150 H.P. KERMATH
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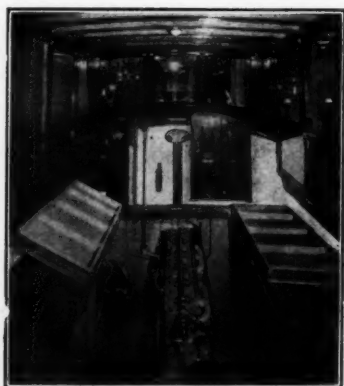
In Every Port GRAY CRUISERS

*Are the Center
of Attraction*

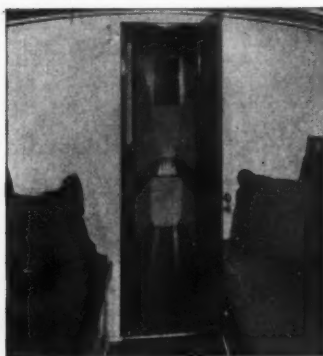
IN no standardized boat do you find a more beautiful expression of the boat builder's handiwork than you do in Gray Cruisers. That is why the Gray Thirty-Six-Footer Cruiser is the center of attraction in every port it visits. Yachtsmen who really know boats immediately recognize in this handsome cruiser the master work of skilled designers and expert artisans.

THE Gray Thirty-Six-Footer Cruiser is designed to meet the requirements of the yachtsman who enjoys day outings and at the same time wants better than the usual accommodations of a cruising boat for long trips. In this boat you have every desirable convenience—a fully equipped galley, neat lavatory, comfortable sleeping accommodations for four people in addition to quarters for paid hand. Interior arrangements of the Gray "Thirty-Six" may be varied to suit special individual requirements. The Scripps G-6 six-cylinder marine engine is standard power equipment.

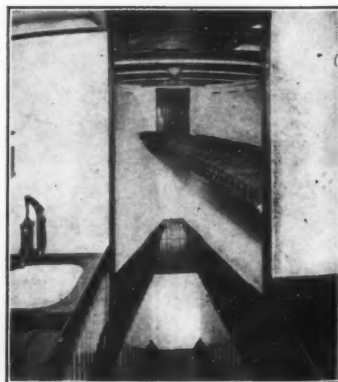
Write to-day for price and detailed description.



Engine compartment is under bridge and is unusually roomy



The main cabin sleeps four



Galley is between forward and after cabins. Paid hand's quarters are forward

Gray Boats

THOMASTON, MAINE

WESTERN REPRESENTATIVE

CARL M. GRAY, Jr., Central Manufacturing District Bank, 1112 West 35th St., Chicago, Ill.

Advertising Index will be found on page 172

Buffalo reliability shows in the boat

Compare the Buffalo Model R with other engines of its size—compact, smooth, quiet, always efficient, ample power without excessive weight. It is a comparatively high speed engine with all of the sturdy strength usually associated with the heavier types.

It is built to meet the power needs of cruisers and large runabouts, and sold at a price which is surprisingly low, quality considered.

The superior design and careful workmanship of Buffalo Engines show in the boat. It is the secret of their world-wide reputation for reliability and economy.

Buffalo Engines are built in sizes from 10 to 200 H.P. Tell us about your boat and let us suggest a Buffalo to power it.

BUFFALO GASOLENE MOTOR CO.

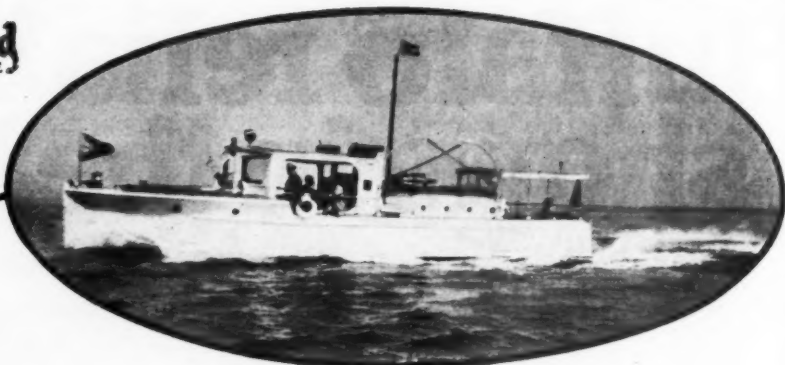
1274-1286 NIAGARA STREET

BUFFALO, N. Y.

New York Office: 347 Madison Avenue



Please mention MOTOR BOATING, 119 West 40th St., New York

Red Wing Thorobred
THE MOTOR WITH POWER TO SPARE

A. W. Meiner's 41½"x9½"x3-foot cruiser "WANDA" making 12 miles per hour easily with her Little Chief BB-SIX 50-80 h.p. THOROBRED powerplant.

Nov. 10, 1927

VERRIER, EDDY CO.,
222 E. 42nd St.,
New York City.
Gentlemen:—

I am enclosing herewith a photograph of the "WANDA" whose dimensions are 41'6"x9'6"x3'0". She is a Hand designed "V" bottom, heavy construction and carries heavy cruising equipment.

The Little Chief BB-SIX Red Wing which I installed last Spring has given a very good account of itself the past Summer. The motor handles a 22x15 Hyde wheel at a range of from 200 to 1150 r.p.m. without any bucking or stalling at any speed. In all my boating experience I have never had any motor that gave me equal performance. At 1050 r.p.m. this motor drove the "Wanda" a little better than 12 miles per hour, arriving at this over a course with and against the tide.

In closing I would like to say that I greatly appreciate the interest you have taken in my boat and the service rendered by your entire organization.

Yours very truly,
ARNOLD V. MEINERS,
55 Van Ness Ave.,
Rutherford, N. J.

Never Had A Motor That Equalled The Performance Of His Red Wing

AN oft repeated phrase from the Red Wing owner, but one of the best reasons why you should also choose THOROBRED power for your boat, because it indicates the complete owner satisfaction which these engines give.

Prominent builders like Geo. Lawley & Sons; F. D. Lawley, Inc.; Mathews Boat Co.; Dawn Boat Co.; Casey Boat Building Co.; Hutchinson's Boat Works and many others are using an increasing number of Red Wings because of the favorable reaction from their customers. Mention Red Wing to your Builder; he will be glad to supply you also.

New 1928 Catalog Mailed Free on Request

RED WING MOTOR CO.

DEPT. "B"

RED WING, MINN.

U. S. A.

12 Thorobred Sizes From 4 to 150 H. P.

4 Cylinder Models

D 10-14 h. p.
AA 18-24 h. p.
F 28-36 h. p.
B 32-40 h. p.
BB4 40-50 h. p. MD
BB4 45-70 h. p. HS
Big Chief 50-60 h. p.
BC Sp 75-90 h. p.

6 Cylinder Models

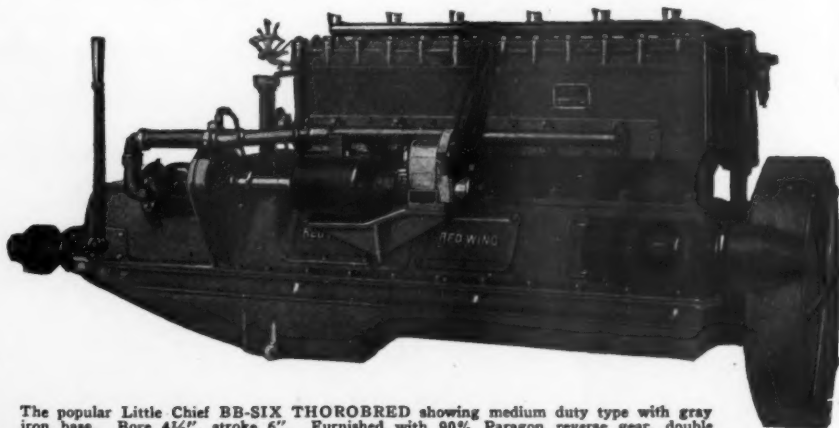
BB-SIX 50-80 h. p. MD
BB-SIX 80-110 h. p. HS
Big Chief 6 85-110 h. p.
BC Sp 6 110-150 h. p.

1 and 2 Cylinder Models

K 4-5 h. p.
KK 7-8 h. p.

All Exhibited in Block "V," Mes-
sarine Floor, at the New York
Motor Boat Show, Jan. 20-27.

Eastern Distributors:—Verrier, Eddy Co., 222 E. 42nd St., New York City—W. H. Moreton Corp., 1043 Commonwealth Ave., Boston—W. E. Gochenaur Mfg. Co., 631 Arch St., Philadelphia—F. B. Eisenbrandt, Foot of Light St., Baltimore—Hutchinson's Boat Works, Alexandria Bay, N. Y.



The popular Little Chief BB-SIX THOROBRED showing medium duty type with gray iron base. Bore 4½", stroke 6". Furnished with 90% Paragon reverse gear, double ignition, 2 unit 12-volt electric starting, Purolator oil filter, tachometer drive connection and enclosed fly wheel. Massive 2 9/16" crank with 7 main bearings, and completely pressure oiled. Also built with salt water resisting aluminum base, and arranged for twin-screw installations.

Monel Metal Shafts for Deep Sea Fishing Boats



Down go upkeep costs when Monel Metal Shafts are installed

Above: Installing "Engstrand" propeller with 3" dia. x 18 ft. Monel Metal shaft and Goodrich Cutless Rubber bearing on the "Fidus" (ex-U.S. S.C. 102) Capt. Jack Abrams; machine work by Sutter Bros., Brooklyn, N. Y. Below: The "Fidus", owned by S. Wischerth, under way, with a party of fishermen.



THE same properties that make Monel Metal so valuable for propeller shafts, also make it the ideal metal for many other marine parts and fittings. Monel Metal is available in the following shapes and forms: sheets—tubing—strip—wire rope—wood screws—nails—rivets—bolts and nuts—lag screws, etc.

Have your next boat put together with Monel Metal wood screws.

For detailed information about Monel Metal in any form, write to The International Nickel Company.

THE "Fidus" is a fishing boat making regular trips. If the "Fidus" is laid up for repairs, there is a loss of income to the owner. Therefore—

In order to insure dependable, uninterrupted service—in order to assure reliable performance under heavy loads, in heavy seas—the "Fidus" is equipped with a Monel Metal shaft...Monel Metal is the most dependable of all shafting materials. Its strength and toughness help to eliminate breakage and bending. Its rigidity eliminates whip and vibration. Its corrosion-resistance makes it immune to the attacks of salt water.

Because Monel Metal is much harder than proper bearing materials (babbitt, bearing-bronze, or rubber), the shafts are not scored or worn in service. Their smooth, glassy polish doubles and trebles the life of bearings. Repeated delays and expense on this account are reduced to a minimum.

Pleasure boat owners can profitably follow the lead of work-boat owners and install Monel Metal shafts. Ask your boat-yard machinist about Monel Metal or write direct to us for further information.

Monel Metal shafts are equally appropriate for use with bearings of babbitt, bearing-bronze, or Goodrich Cutless Rubber Bearings

Monel Metal is a technically controlled Nickel-Copper alloy of high nickel content. It is mined, smelted, refined, rolled and marketed solely by The International Nickel Company. The name "Monel Metal" is a registered trade mark.

MONEL METAL

THE INTERNATIONAL NICKEL COMPANY (INC.)

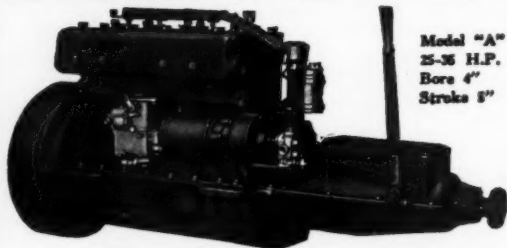


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ROBERTS MOTORS

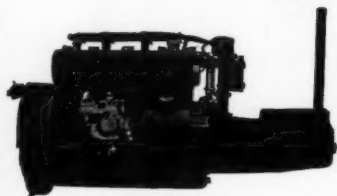
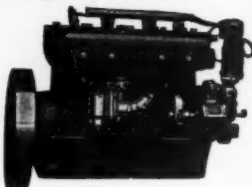


Model "A"
25-35 H.P.
Bore 4"
Stroke 5"

Price \$398.00, without reverse gear or starter.

Model "J" 18 H.P. Bore 3 1/4",
Stroke 4". The lowest priced
engine in America. Complete as
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Interchangeable with Ford parts.



Model "RS" 35 H.P.
Price complete without
reverse gear or starter,
\$528.00.

A motor for fast run-
abouts.

ROBERTS MOTORS
SANDUSKY, OHIO

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At the New York
MOTOR BOAT SHOW

A HEARTY welcome
awaits you at the
splendid Tiebout exhibit
of Marine Hardware and
Supplies at the show, and
at all times at Marine
Hardware Headquarters,
118 Chambers Street.

W. & J. TIEBOUT

118 Chambers Street New York

224

Lookit!

(Continued from page 92)

The Laughing Jackass was towing her anchor securely armed with a mass of eel grass. The gas had gotten so low that it no longer swashed in her tank as they heaved.

For the rest of the passage I cannot vouch. The able fishermen may have made the gas last for the five mile run after they hauled in their anchor. They may have run as far as they could and gotten a tow home, or they may even have had the sense to run up the other side of the bay as far as was necessary to make the northwest wind fair for a drift home, saving enough gas to reach the tender after they were nearly in. They may have done any of these things, I cannot tell, but this I know.

I had watched for them all day off and on. The last time I went down to the bay shore I saw their boat riding at anchor. The tender was gone. I looked up and down the beach avoiding the glare of the sun path, for what signs I might see of them, but there was nothing. Then at my feet, out of the blinding golden light came a voice.

"Lookit! Give us a hand, will you?"

It was a meek and lowly voice, Dan's surely. I caught a silhouette, a scarecrow of a figure just below the black stern of my beloved dink. I'll know that dinghy in heaven, but I had to wait for the voice to speak again before I could sense what had happened.

"What shall I do with her?" asked Dan.

He was standing holding her stern to the seas.

"Where's Dick?" I asked.

"There," said Dan jerking his head toward Good Luck Point. "We upset."

Sure enough, on the southern edge of the sun path was Dick dipping and porpoising, like a sure enough black duck, fetching the bottom for grass.

"Lose your fish?" I asked, bailing the water out of the tender with an old discarded basin.

"Nope," said Dan.

"Got none?" I suggested with a shade of taunt in my voice.

For answer he held up the three. Three beauties I admitted them to be. Then he stabbed me.

"Lost your ditty box. Dick's diving for it, but we're not such bad fishermen, eh?" This last brightly by way of atonement.

My ditty box lay in eighteen feet of water safe from Dick's diving and my oyster tongs. Ten years of culling and choosing lost in mud ooze. I looked at the black smudge that was the Laughing Jackass.

"Best fishermen in the world, no doubt, but you're sure damn rotten sailors," I said with asperity. "Come on, let's get the dink up the beach."

Outboard Regatta at Tampa

The outboard regatta recently held over the Davis Islands Marine Speedway at Tampa, Florida, by the Tampa Boat and Anglers Club got the 1927-28 racing season in that state off to an early start. Thousands of spectators lined the Davis Island seawall and competition was very keen among the little speedsters especially in the Class B and Class C heats which were the main features of the regatta.

Over a triangular course in three heats of two one and one-quarter mile laps each, Bruno, Class B, owned by J. O. Whipple of St. Petersburg splashed to victory finishing first in all three heats. Time: 6:12, 5:57, 6:05. Second place went to Spirit of Clearwater owned by E. L. McKisson of Clearwater, finishing second in the first and third heats and third in the second. Time: 6:47, 6:19, 6:18.

Baby Winter Haven, owned and driven by Malcolm Pope of Winter Haven, led the Class C outboards winning every heat with a time of 5:5, 5:19, 5:14. Florida Flier, piloted by Al Hodgeson, St. Petersburg, was close behind and was second with times of 5:24, 5:20, 5:14 2/5.

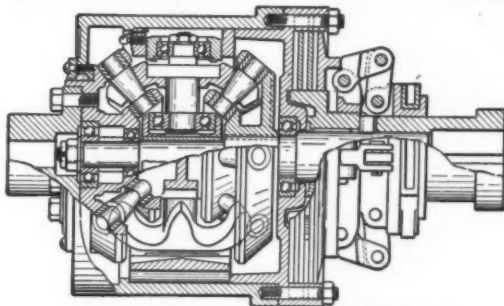
A Chance for American Outboard Manufacturers

Advice has been received from the Bureau office at Sydney, Australia, stressing the added interest which is now being shown in outboard motor boat racing and it is the opinion of this office that some business might be done in hulls and engines, particularly of the better type. Any American manufacturer who might be interested in entering this market is requested to furnish catalogs, prices, discounts, and detailed information concerning agency opportunities to the Automotive Division, Department of Commerce, for transmittal to the Sydney office.

INTRODUCING

— A —

RUGGED PRODUCT OF THE WEST



PATENTED THROUGHOUT THE WORLD

The AMERICAN REVERSIBLE CLUTCH

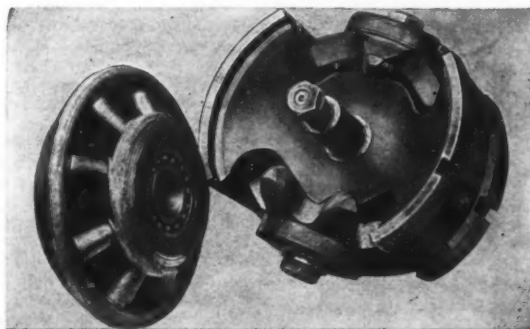
REVERSES 100% SPEED WITH 94% TO 97% ACTUAL H.P.
FOR AS LONG AND AS OFTEN AS REQUIRED

5 TO 500 H.P. AT ANY REVOLUTIONS

A Revolutionary and Fully Proven Reversing Mechanism

FULL SPEED AHEAD TO GOING ASTERN
IN A BOAT'S LENGTH

NO SPUR GEARS
NO BEVEL GEARS
NO PINIONS TO
HEAT, WEAR AND
REPLACE
ALL ROLLING
CONTACTS



A REVERSING
CLUTCH THAT
WILL OUTLAST
THE ENGINE

PERFECT
LUBRICATION
QUIET OPERATION

The Strongest and Most Efficient Reversible Clutch Ever Built
ENGINE MANUFACTURERS, JOBBERS AND DEALERS!

"YOUR ENGINE IS ONLY AS DEPENDABLE AS ITS CLUTCH"

WRITE US FOR OUR PROPOSITION.

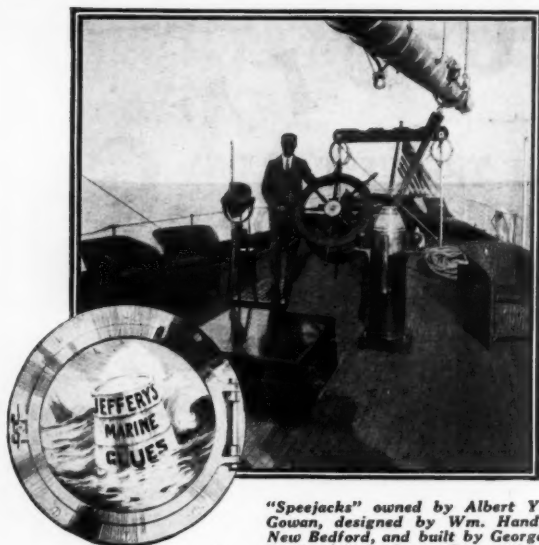
AND SEE OUR DEMONSTRATING EXHIBIT AT THE

NEW YORK MOTOR BOAT SHOW

THE REVERSIBLE CLUTCH CORP'N

314 EAST THIRD ST., LOS ANGELES, CALIF., U. S. A.

Please mention MoToR Boating, 119 West 40th St., New York



"Speejacks" owned by Albert Y. Gowan, designed by Wm. Hand, New Bedford, and built by George Lawley and Sons Corporation. Photo by Rosenfeld.

Builders of famous yachts say: "No other glues can compete with it."

EVER since the days of wooden ships and iron men, Jeffery's Marine Glue has been the choice of those who are best qualified to know the value of a high-grade glue for paying deck seams.

George Lawley and Sons, builders of famous yachts and motor boats, state—

"Jeffery's Marine Glue is used exclusively in all our boats and we consider that there is nothing on the market to compete with it. It expands and contracts with the deck and does not crack and brittle out."

The wise builder and owner of boats does not experiment with unknown glue. It is too costly to save a few cents on such an important item in boat-building. That is why Jeffery's Marine Glue is demanded—a high-grade glue that has been tested for 81 years.

Our Booklet—"Marine Glues—What to Use and How to Use It"—sent on request.

Visit our exhibit, Booth 62, National Motor Boat Show, Grand Central Palace, New York, January 20th to 28th. Complete display of Jeffery's Marine Glues, besides models of standard speed boats.



L.W. Ferdinand & Co.
152 Kneeland Street, Boston, Mass.

Skinney, a Sailing Canoe

(Continued from page 33)

of all frames to receive the clamps. Fasten the clamps to the frames with one, one-eighth inch diameter brass bolt in each frame, bolts to be let in flush in clamp. Chines to be fastened to the corner pieces with one-eighth inch diameter brass bolts, one at each corner piece, heads of bolts to be let in flush in chine.

With this part of the construction properly set up and fastened together we can now lay off the spacing of our planks so that the seam battens can be set on. Split each side frame into five parts from the chine seam to the deck seam. Using each seam mark as a center line for the seam batten cut the notches in the frames to receive them, the battens are to be in one length from stem to sternpost, and of spruce five-eighths inch thick and three-quarters of an inch wide. Battens to be fastened to frames with brass screws, No. 6, about one and one-quarter inches long, one in each frame at each batten.

Build up the centerboard trunk, sides to be of one-half inch pine, headledges of oak three-eighths by one and one-half inches. See that the joint between the siding of the trunk and the keel batten is a very good one otherwise a leaky trunk will result, set the siding up in either thick paint or shellac, use through bolts of brass through the keel batten and the siding, bolts to be of brass and about three-sixteenth inch in diameter, spaced about 9 inches centers. Also take care with the joint at the headledges. To brace the siding of the trunk the cockpit floor beams can be fitted, this will tie the whole trunk rigid.

At each end of the cockpit there is to be watertight bulkhead fitted. This is to be built up of two layers of three-sixteenth inch pine, laid diagonally with a piece of linen laid between. Varnish or paint both sides of the bulkhead.

Lay out all the deck beams to the crown shown on the lines, all crowns to be a radius of a circle, the height of the deck at the center line is shown on the lines. The beams are to be of spruce one-half inch thick and one and one-quarter inch wide, sawn to crown a beam to be put on every frame. The fore and after to take the coaming is to be the same size stuff as the beams. Fit spruce partner pieces for the two masts and the two deck plates.

One three inch diameter brass tube is to be fitted forward to take the mainmast, and one, two, and three-eighths inch diameter tube aft for the mizzen mast. At the base of these tubes fit wooden blocks with a groove cut in them to take the heels of the spars so that the spars will not turn.

The decking can be laid next, to be of mahogany, one-quarter inch thick, this can be left as is and stained and varnished or else it can be covered with a thin piece of canvas so that the deck will be made absolutely watertight.

The entire hull can be planked now, laying the planks out so that the seams come in the center of the battens. The side planking is to be of cedar, to finish one-quarter inch thick and the bottom planking, also of cedar is to finish five-sixteenths of an inch. When planking allow for the outside chine and also the outside keel, or in fact it might be better to fit both of these members before planking. The planks can be fastened to the battens either with brass screws or copper rivets. The fastening between frames along the battens should be copper rivets as they are less apt to work loose. The finish on the planking can be either paint or varnish as preferred.

Make a large pattern both of the centerboard and the rudder, dimensions of both are given on the detail plans, the rudder is to be cut from a three thirty-second inch brass plate and the centerboard from three-sixteenth inch plate. The detail of the tiller arm on the rudder is given on the drawings. Hang the centerboard in the trunk with a three-eighth inch diameter bolt. After hanging the board the cockpit floor can be fitted. This floor should be made watertight. Two six-inch diameter handhole plates are to be fitted in the floor so that the bilge between the two bulkheads can be sponged out once in a while. Both these deck plates and the plates on deck are to be as light as possible, some build them of wood with metal rings which makes a very light plate.

No difficulty should be encountered in the rigging up of the sliding seat and of the rudder gear as they are pretty well detailed on the drawings.

For the sizes of the spars, all the necessary dimensions are given on the sail plan, the goosenecks used are to be of the simplest pattern obtainable. A sheave is to be fitted in the top of each mast for the halyard. Each mast is to be fitted with a track to take the slides sewn to the sail. One stay is to be fitted on each mast even this is not necessary and should be as light as possible. One single block fitted on each boom with two fair leaders fitted on each side of the deck for each sheet will constitute the sheet lead. Sails are to be made of

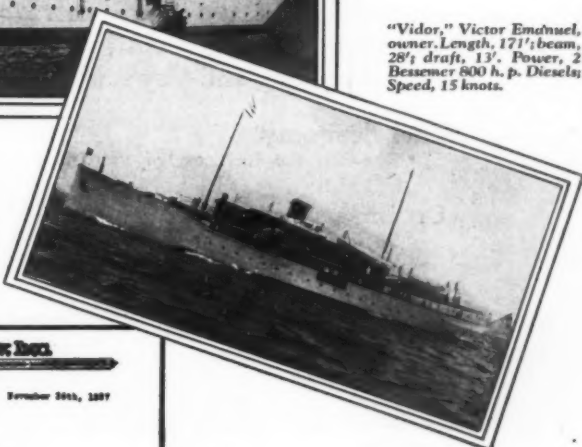
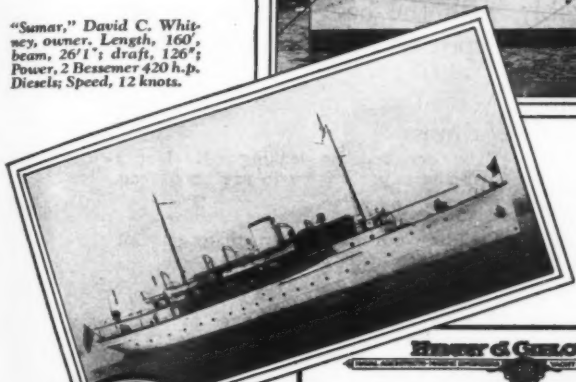
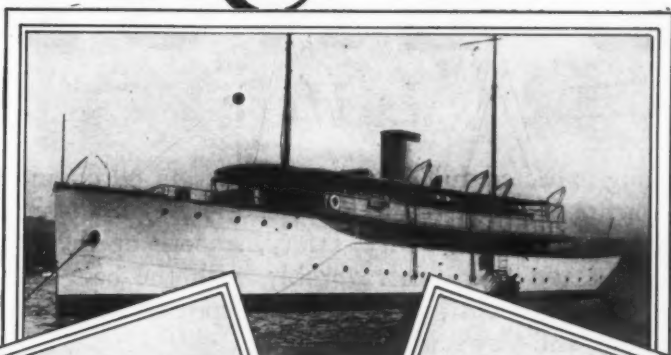
(Continued on page 106)

Three Famous Gielow Yachts Equipped With *Cutless Rubber Bearings*

"Athero II," Jesse Livermore, owner. Length, 171'; beam, 28'; draft, 13'. Power, 2 Bessemer 800 h.p. Diesels; Speed, 15 knots.

"Samar," David C. Whitney, owner. Length, 160'; beam, 26' 1"; draft, 12 1/2'. Power, 2 Bessemer 420 h.p. Diesels; Speed, 12 knots.

"Vidor," Victor Emanuel, owner. Length, 171'; beam, 28'; draft, 13'. Power, 2 Bessemer 800 h.p. Diesels; Speed, 15 knots.



Henry & Gielow, Inc.
125 West 40th Street, New York, N.Y.
November 26th, 1927

The B.F. Goodrich Rubber Company,
Akron, Ohio.

Dear Sirs:

Attention Mr. L. W. Moffitt

Acknowledging your communication of the 26th, I am pleased to say that our experience with Goodrich Cutless Rubber Bearings has been so satisfactory that we are specifying them on all our new yachts.

"ATHERO" has just completed a trip around the world, covering some 30,000 miles, equipped with Goodrich Cutless Rubber Bearings and Chief Engineer Shinkle reports to us on his arrival here that the bearings are in as good condition today as when they were installed in the summer of 1926.

"ATHERO" has been in operation for over a year now and "VIDOR" has been in operation close on to 18 months, has been steamed, and is now back here in America. Both of these yachts are equipped with Goodrich Cutless Rubber Bearings and on the performance of all three of them we feel satisfied that we can confidently recommend the use of these bearings on all our future yachts. We are, therefore, using them on "SAVANNA" the new 224 ft. yacht building at Pusey & Jones as well as the 228 ft. yacht building at Lawley's and the 240 ft. yacht building at Bath Iron Works, Bath, Maine.

In connection with the window display and the painting that you are planning to have made, it might be well to consult Mr. C. M. Smith, 3 Park Row, who is quite expert in the preparation of paintings of this nature, and who would be in a position to give you a painting as true to life as it could be possible to obtain. He does all of our work and you might find him of special assistance to you in connection with the display you speak of.

Very truly yours,

HERBERT J. GIELOW, INC.
Herbert J. Gielow

370-2

Specified as standard for
all yachts designed by
Henry J. Gielow, Inc.

Highly recommended
for use with Monel
metal or bronze shafting.

Write for new book-
let, "Goodrich Cutless
Rubber Bearings for
Marine Service."

THE B. F. GOODRICH RUBBER CO.
Established 1870 Akron, Ohio

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Goodrich

Cutless (Rubber) Bearings

—FOR STERN TUBES AND STRUTS

The Light Weight, High Speed DIESEL OIL ENGINE Is Here

THE long expected full Diesel, cold starting oil engine for cruisers and yachts that not only embodies the Diesel advantages of fuel economy, greater cruising range, safety, smooth operation and endless reliability, but also compares favorably with the best gasoline cruiser engines in speed, first cost, weight per horsepower, cleanliness, compactness, simplicity and easy starting.

Fuel Economy

One-fifth the fuel cost of gasoline engines.

Cruising

Three times the distance on one filling of the fuel tanks.

Safety

Diesel Oil reduces fire hazard and lowers insurance rates.

Smoothness

Steady expansion instead of violent explosion gives smoother operation.

Cleanliness

Fully enclosed, no leaking oil. Not a place on entire engine to use an oil can.

Compactness

Requires no more room than gasoline engine of same capacity.

Simplicity

Simpler than gasoline engines in operation and maintenance.

Easy Starting

Starts on the first turn, whether at zero or torrid temperature.



MEDIUM DUTY AND HIGH SPEED MODELS

The new Model "U" Cummins Engines, exhibited for the first time at the New York Motor Boat Show, are the most advanced high speed oil engines on the market. Don't miss this opportunity to examine this latest development in cruiser power plants.

Northeast Corner, Main Floor, Grand Central Palace, January 20-28

Cummins Diesel Generating Sets exhibited by
Smith Meeker Engineering Co., Space 95-96, Third Floor

CUMMINS ENGINE CO.

Columbus, Indiana

Any Service Is Easy Service With a CUMMINS

Announcing The New, Bigger and Better

Fleetwing



A Forty-Footer *The Cruiser Supreme*

FOR 1928 we announce the Fleetwing Forty which will make its debut at the National Motor Boat Show, Grand Central Palace, New York, January 20th to 28th, Block B, 2 and 3. The new Fleetwing is two feet longer than its predecessor and has many new and attractive features which will be described in detail in February MoToR BoatinG. There is no other boat equal to it in value, appearance, comfort or performance, within its price range. Service facilities are provided for the new Fleetwing cruiser in every port. Watch for further particulars or write to-day for full information and price.

Representatives Wanted

Several desirable territories are open for aggressive representatives of good financial standing. Write, wire or telephone for our special franchise proposition.

FRANK V. BORICK

Director of Sales

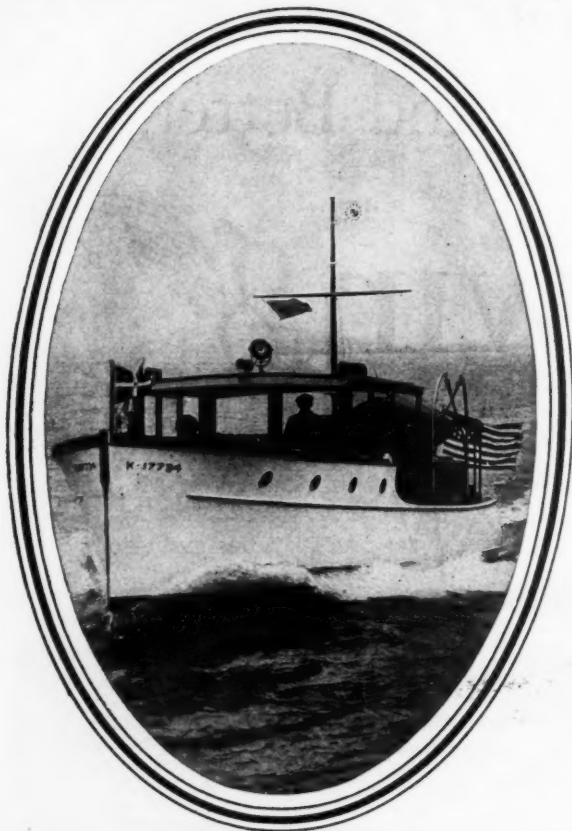
152 West 42nd Street

New York, N. Y.

Greenport Basin & Construction Co.—Builders

Please mention MoToR BoatinG, 119 West 40th St., New York

GREATER CRUISING COMFORT

**The DAWN "45"**

Twin-Screw Cruiser

See It at the Show

YOU are cordially invited to inspect the famous Dawn "45" Twin-Screw Cruiser at the Motor Boat Show, Grand Central Palace, New York, January 20-28, space A-4. You will marvel at the completeness of this boat, the richness of its finish, its luxurious appointments and many exclusive features, besides other refinements seldom found on standardized craft.

The Dawn 45-footer, powered with twin 65-horsepower Kermath marine engines, is priced at

\$14,600

Powered with the six-cylinder, 65-horsepower Kermath marine engine, the Dawn 38-footer, completely equipped is priced at

\$8,875**DAWN BOAT CORPORATION**

Telephone: Westchester 7000

CLASON POINT, NEW YORK CITY**DAWN CRUISERS****Skinney, a Sailing Canoe***(Continued from page 102)*

what is known as balloon silk and had best be made by a sailmaker if a satisfactory job is desired.

Now everyone will probably ask, how much will this boat cost to build? I would say that the material should not cost over fifty dollars, exclusive of sails and the special fittings. The cost of these fittings depend on whether you can make a pattern for them or whether you will have to have it made. The pattern is generally the most expensive part of them. Any brass foundry will cast them for you at a pound rate.

Readers of MoToR BoatinG who plan to construct this boat can secure blue print copies of the drawings to a scale of 1/4 inches to the foot at moderate cost. Write the Editor, MoToR BoatinG, 119 West 40th Street, New York, N. Y., for particulars. MoToR BoatinG has also published some excellent books on small boat design and building which amateur builders will find useful. A circular describing these books will be sent on request.

SPECIFICATIONS:

INSIDE KEEL: Spruce 3/4 by 3 inches, about 17 feet 0 inches long.

OUTSIDE KEEL: Oak, 3/4 by 1 3/4 inches, about 17 feet 0 inches long.

STEM: Oak, sided, 1 1/2 inches, molded 2 1/2 inches at head and 4 inches at heel.

STERNPOST: Oak, sided, 1 1/2 inches, molded 2 inches at head and 3 inches at heel.

STEM KNEE: Oak, sided, 1 1/2 inches, shaped as shown.

STERN KNEE: Oak, sided 1 1/2 inches, shaped as shown.

INSIDE CHINE: Spruce, 1 1/4 by 1 3/4 inches.

OUTSIDE CHINE: Oak, 3/4 by 3/4 inches.

CLAMP: Spruce, 1/2 by 1 inch.

SEAM BATTENS: Spruce, 5/16 by 3/4 inches.

FRAMES: Spruce, 3/4 inch, spaced 12 inches. Side frames molded 1 1/2 inches. Bottom frames molded 1 3/4 inches.

DECK BEAMS: Spruce, 1/2 by 1 1/4 inches.

SIDE PLANKING: Cedar, to finish, 3/4 inch.

BOTTOM PLANKING: Cedar, to finish, 5/16 inch.

CORNER BRACES: Spruce, 1/2 inch.

DECKING: Mahogany, 1/4 inch.

COAMINGS: Mahogany, 1/4 inch.

COCKPIT BEAMS: Spruce, 1/2 by 1 1/4 inches.

COCKPIT FLOORING: Pine, 5/16 inch.

CENTERBOARD TRUNK: Siding, 1/2 inch pine, headledges, oak, 3/8 by 1 1/2 inches.

SPARS: Western spruce.

CENTERBOARD: 3/16 inch brass.

RUDDER: 3/32 inch brass.

MAST TUBES: One 3 inch diameter and one 2 3/8 inches diameter.

DECK PLATES: Two 6-inch diameter and two 8-inch diameter.

TILLER FITTINGS: Cast bronze.

SLIDING SEAT: Seat, spruce, brace for seat to be of maple.

SAILS: Balloon silk.

Readers of MoToR BoatinG are reminded that the offer made last month grants to them the privilege of suggesting a type boat or design to be worked up in complete form by MoToR BoatinG's naval architect. Readers are invited to send in their thoughts for their dream ship, and if they are at all practical, a set of drawings will be prepared from these thoughts and printed in due time in MoToR BoatinG. The only limitation which is made in connection with this offer, is the one which limits to be designed to 35 feet in length. Naturally, we cannot undertake to prepare a design for a large and expensive yacht. It is the intention to provide suitable designs for the small boat owner to build, or to have built for himself.

Branford Yacht Club Comes Back

At the mouth of the Branford River in Connecticut on a large tract of land, the Branford Yacht Club has established its home. An ideal anchorage in front of the club provides a safe harbor for the fleet which is now growing rapidly. During the war period, the club was practically forgotten, and until very recently the club remained inactive. Through the efforts of several new and enthusiastic yachtsmen the club has been again restored to its former activity. The membership is now about 150 men, and under the leadership of Commodore H. C. Carstan is thriving and succeeding. As a convenience to members and visitors a large pontoon float with a substantial gangway has been provided, and fuel and water are available at the float. Visitors from other yacht clubs are welcome to call and will find the trip to the Branford River well worth while.

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Outboard MOTOR BOATING

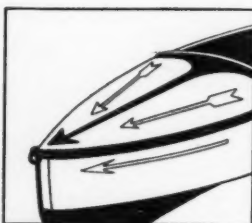


Magazine for the Outboard Boater

MULLINS BOATS

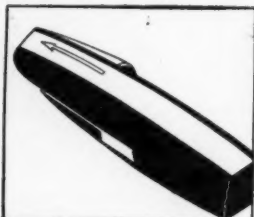


The LIGHTNIN' BUG *in Aluminum!*



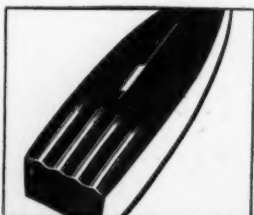
NEW FORWARD DECK

The true race-boat effect is carried out by the new aluminum forward deck with flared cowl and arrows embossed in high relief. Its practical advantages include protected stowage for picnic baskets or camping gear.



KEEL FIN

Straight as an arrow on her course. "She turns," as a test driver told us, "on a dime, and gives you nine cents change!" The keel fin, together with the corrugant bottom, (see below) makes this possible.



CORRUGANT BOTTOM

Corrugations in the after bottom plate imprison the rush of air under the bows, and literally float the Lightnin' Bug on air bubbles. The result is reduced draft, more speed per horsepower and no side-slip on these "air runners."

The year of grace, 1928, will see *Aluminum* strongly featured in fine speed boat hulls.

And having been the leader in metal boat building for thirty-three years, it is but natural that Mullins should announce the first aluminum boat in quantity production.

But wait, the world forgets. Fifteen years ago Mullins built aluminum hulls. Not many, of course. They were too expensive then. Since those days, new, heat-treated alloys of ten times the strength have been developed by the Aluminum Company of America.

As a result, the Mullins Lightnin' Bug will be the high-spot of 1928 in production boats.

In appearance — a glistening silver ship — just like a race trophy come to life!

In construction — stout and true and fine, with amazing strength to serve you through the years.

In speed — a revelation, *beyond question the fastest boat that's safe.*

And as for price — you'll wonder how it can be done!

In addition to the Lightnin' Bug, all four models of the 16 foot Sea Hawk will be presented in Aluminum in 1928 as well as in Armco Iron.

MULLINS MANUFACTURING CORPORATION
Salem, Ohio

A marking buoy of the permanent type in use



Laying Out A RACE COURSE

*Some Notes on the Establishment
and Marking of Races Courses*

By W. Mack Angas, Lieut. Comdr. (CEC), U.S.N.
Assoc. M., Am. Soc. C. E.

It would be an exaggeration to say that an adequate and accurately surveyed course is the most necessary requisite for a successful motor boat race. The one essential thing for a successful race is a satisfactory group of entries that actually materialize at the starting line. There seems, however, to be quite a general appreciation on the part of Club members of the necessity of being forehanded with preparations for a regatta insofar as securing entries is concerned, but the important detail of laying out an accurately marked course is not always given the consideration and forethought it deserves. This may be because it would appear possible for the surveyor to lay out and mark a course in a few hours when given its length, shape, and general location. Fortunately, local conditions sometimes make the establishment of even a very accurate course a simple matter. The writer knows of at least one recent case where a surveyor was given the job of laying out a course for a regatta at 7:30 A.M. of the day of the first race which was scheduled for 2:30 P.M. Fortunately, local conditions made the surveyor's task a possible one, in spite of the short time available for his work. In many cases, however, the job could not have been properly done.

The purpose of this article is to outline the various considerations governing the selection of a course, and then to discuss briefly the general methods to be used in laying out and marking it. The details of the survey work involved will only be touched upon enough to give the general reader some appreciation of the amount of work involved and time required for surveying an accurate course under average conditions. No attempt will be made to give instructions which will enable the tyro to undertake the survey work for the establishment of an accurate course. What follows should be of some interest, however, to experienced amateur students of navigation and hydrography who may undertake the job.

The amount of trouble and time to be

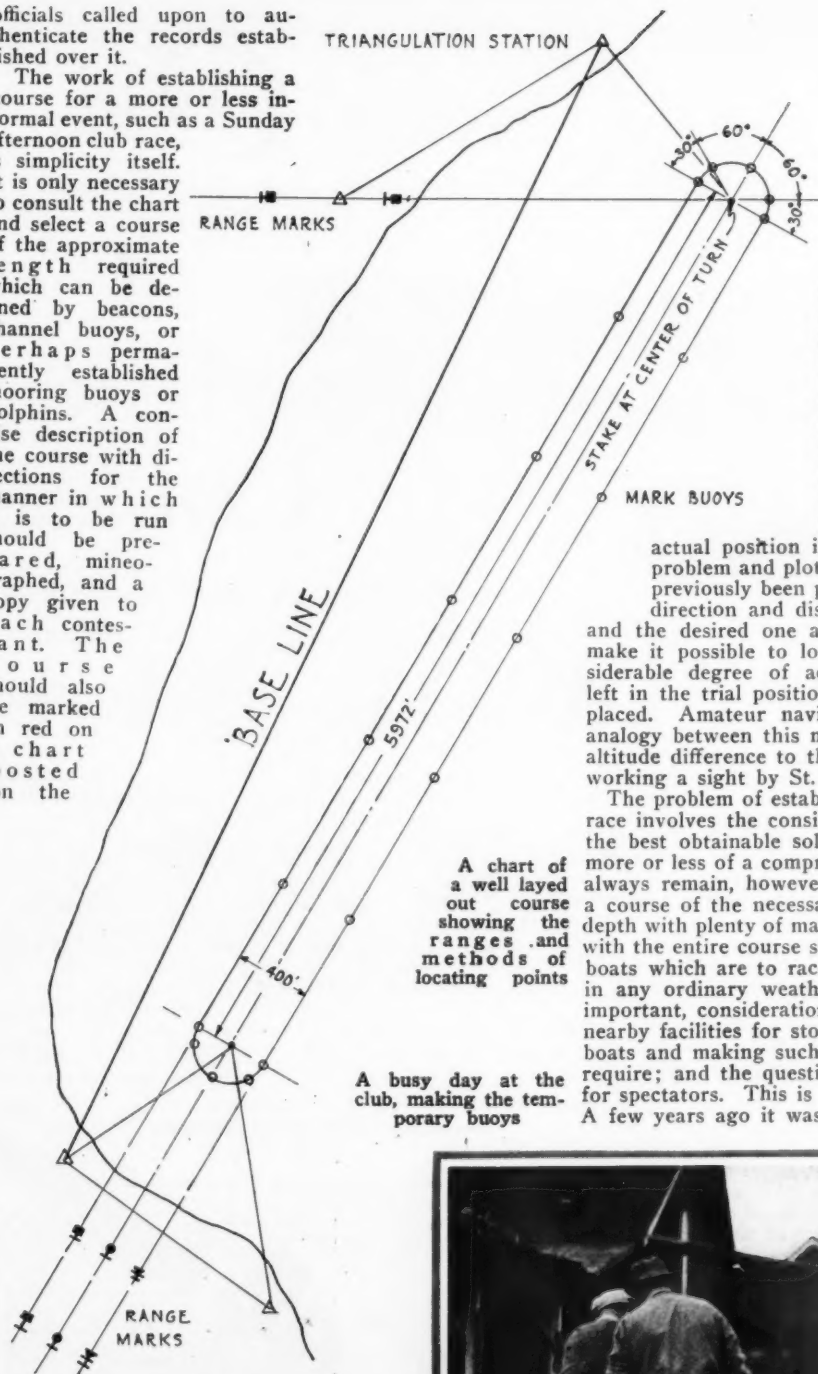
spent on the establishment of a race course naturally depends upon the importance of the race to be run over it. For a club event, in which no attempt is made to establish official records, a very simple course will suffice. In such cases, it is often possible to use aids to navigation, such as beacons or buoys, for several or all of the marks. For the more important type of club event, it will be desirable to have a fairly accurate course laid out by one of the most skillful available amateurs. For an important sectional or national regatta in which official records are to be established, it is absolutely necessary that the course be surveyed by a professional of established standing whose affidavit as to the length and accuracy of the course will carry weight with the national

Assembling the frame of a temporary buoy



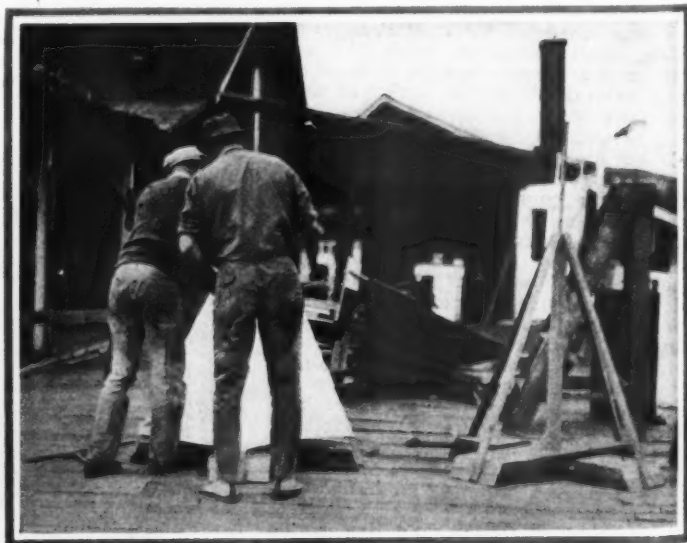
officials called upon to authenticate the records established over it.

The work of establishing a course for a more or less informal event, such as a Sunday afternoon club race, is simplicity itself. It is only necessary to consult the chart and select a course of the approximate length required which can be defined by beacons, channel buoys, or perhaps permanently established mooring buoys or dolphins. A concise description of the course with directions for the manner in which it is to be run should be prepared, mimeographed, and a copy given to each contestant. The course should also be marked in red on a chart posted on the



A chart of a well layed out course showing the ranges and methods of locating points

A busy day at the club, making the temporary buoys



bulletin board with other information on the race. The starting and finishing line should be defined by anchoring the committee boat opposite a convenient mark which may be a pier head, beacon, or a flag mounted on a float or dinghy specially moored for the purpose. If a course of the required approximate length cannot be laid out around existing buoys or beacons, it will rarely be necessary to supplement such existing marks by more than a single temporary one especially placed for the purpose. This may be a large red flag mounted on a dinghy or skiff anchored in the desired location, or it may be a mark

buoy of a type described later. No survey work will be required in placing such a mark other than to plot its desired position on the chart and then anchor it as closely as possible to the plotted position. A sextant and three arm protractor will be useful if a fairly accurate location is wanted as the position may be checked with these

instruments by means of the three point problem. A wrinkle in placing such a mark by this method is to provide an additional buoy or at least take along an extra dinghy and anchor. The dinghy or spare buoy is first of all anchored in what may be called a trial position as closely as possible to the final desired position for the mark. When it has swung to its mooring, its

actual position is determined by the three point problem and plotted on the chart upon which has previously been plotted the desired position. The

direction and distance between the trial position and the desired one as shown by the chart will then make it possible to locate the mark with a very considerable degree of accuracy provided the dinghy is left in the trial position until the mark is satisfactorily placed. Amateur navigators will recognize a certain analogy between this method and the application of an altitude difference to the dead reckoning position when working a sight by St. Hilaire's method.

The problem of establishing a course for an important race involves the consideration of so many factors that the best obtainable solution will in nearly all cases be more or less of a compromise. The prime requisite must always remain, however, a location providing room for a course of the necessary length in water of a suitable depth with plenty of maneuvering space on the turns and with the entire course sufficiently sheltered to permit the boats which are to race over it being run at full speed in any ordinary weather. Secondary, but nevertheless important, considerations will be accessibility of proper nearby facilities for storing and handling the contesting boats and making such emergency repairs as they may require; and the question of providing proper facilities for spectators. This is a matter of growing importance. A few years ago it was considered sufficient to provide



A temporary buoy ready to go overboard

A permanent buoy and anchor ready for placing

A permanent buoy knocked-down ready for stowing



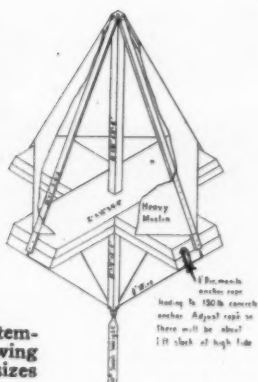
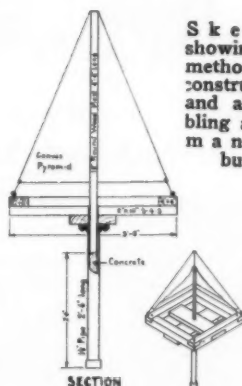
an adequate anchorage along the course, it being assumed that those who were interested in seeing the races would get to them in their own boats or those of friends. Nowadays, however, some sort of grandstands open to the public are the rule, rather than the exception. Sometimes they are placed on shore and sometimes on large barges or lighters moored alongside the course near the finish line. Where plans are made to charge an admission to the grandstand it will be necessary to make sure that it offers the best viewpoint for spectators. If a nearby highland on the shore offers as good or a better view than the grandstand, it is needless to say that the gate receipts will be small.

The shape of the course naturally affects the possibility of boats making high speed and establishing records on it. A happy medium must be struck between the antagonistic requirements of long straightaways and easy turns. Probably the most satisfactory race course for small hydroplanes is an oval one on which the boats have two long straightaways with fairly wide radius rounded turns at the ends. Until recently, 200 feet was considered an almost ideal radius for the turns on such a course, but the writer has noticed that even 151 class boats cannot make such short radius turns at full speed and that they either slow down or swing the turn wide; in either case losing time seriously. It is believed that turns of about 400 feet radius would permit their being negotiated at full speed without swinging off the course to any considerable extent. The actual shape of any course selected must, however, depend so much on local conditions as to make the discussion of anything beyond the above generalities out of the question. A word might be said, however, on the question of orientation with respect to lighting. Other things being equal, the course should be arranged so as to make it unnecessary for the judges and timers to face the glare of the sun as they watch the boats come down the home

stretch to the finish line. It is, of course, essential that the boats be identified by the timers as they approach the finish, and this is sometimes difficult if the officials must look directly into the glare of a setting sun. It is perhaps needless to say that in this country race courses are arranged so that the boats run around them counter-clockwise. To insist upon

the boats running clockwise would seriously handicap single screw racing craft built to make counter-clockwise turns.

Sketch showing the method of constructing and assembling a permanent buoy



A buoy of the temporary type showing materials and sizes

Having decided upon the general features, length, location, etc., of a course, the next step in establishing it will be to get the surveyor and his party on the job. It will be well to do this at least two weeks before the races so as to give the surveyor time to look the job over and make his plans for handling his work in the most economical and effective manner. The actual location of the marks, or at least of a special mark defining the center of each turn, must be made from the shore by triangulation. In some cases this will involve the measurement of a base line on shore which should run approximately parallel to one of the long straightaways of the course. The length of the base line must be accurately determined as the accuracy of the course is dependent upon it. In many cases it will be unnecessary to measure a base line directly as conveniently located secondary triangulation stations of the Coast and Geodetic Survey or the United States Engineers may be used as the ends of the base line. The United States District Engineer or his local representative should be consulted as to the availability of such triangulation stations. He will be able to give all desired information on any stations which may be suitable and will also be able to give the surveyor information as to the degree of precision with which the stations were located. As a general thing, the work of the Coast and Geodetic Survey and the United States Engineers is of such a high order that the base line connecting two of their triangulation stations will be more accurate than anything the

(Continued on page 115)

Ed Davis of St. Petersburg driving his Florida Flyer, the only boat which beat the Diamond Fleet in competition



Officials of the Florida Outboard Racing Association: R. D. Pope, Chairman Racing Committee; Carl Fay, Cocoa Director; H. G. McConnell, Daytona Director; T. G. Hallinan, Publicity Chairman; and A. H. Leonard, Official Timer

FLORIDA Outboards Start Busy Season

*Half Dozen Contests Arranged During December
Arouse Enthusiasm to High Point and Outboard Racing
Promises to Be Biggest Attraction of the Year*

WITH six sanctioned races under the newly-sparkling eyes of the Florida Outboard Racing Association, jotted down as part of this winter's history, between thirty and forty more such events to be held the latter part of December, in January, February, March and April, and one state record of 29.702 miles per hour hung up for the eight horse power boys to shoot at, Florida's outboard motorboat season has been opened in full blast.

Enthusiasm for outboard motorboat racing was born in Florida last spring and its momentum, carried over to the past fall and this winter, has been given impetus by the Florida Outboard Racing Association. Practically every town and city in the state located on a lake, river

or even the Gulf of Mexico or the Atlantic, will have one or more regattas to its credit before the winter is over. Many of the regattas will be sanctioned affairs with resulting likelihood that new marks may be made for boats of all United States to envy.

Crowning the season's performances in importance will be a marathon race of 660 miles from Jacksonville to Miami over Florida's inland waterways, rivers, lakes and canals providing the course. Incidentally this marathon, which will be held early in January, will take the pilots of the eight or ten boats which will be entered, through

(Continued on page 162)



Malcolm Pope driving his Baby Winter Haven III at high speed



Two Fast Ones!

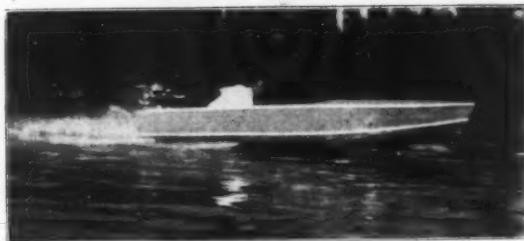
Acme scores again—this time with 30.92 miles per hour in the new Acme Baby Stepper, powered by a Class "C" motor—and with 24.84 miles per hour in the new Acme Skipper, powered by a Class "B" motor. Still greater speeds with the new larger motors.

In the 14 foot ACME BABY STEPPER you will find something a few steps ahead of anything you have yet seen in speed and design and superb finish. In addition to unusual speed there is also a trimness of line, a staunchness, a responsiveness that is found only in boats absolutely correct even unto the last detail of design and construction.

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Acme Outboards for the 1928 season are excellent examples of boat craftsmanship and are very reasonably priced. It will be to your advantage to investigate before buying.

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ACME BOAT CO.—Established 1890—MIAMISBURG, O.

New England

Modifies Its Racing Rules

Outboard Motor Boat Association in New England Finds That Special Requirements Make It Advisable to Amplify the Racing Rules and Suggestions for Such Changes Have Been Made

THE conditions existing in New England seem to be somewhat different from those found elsewhere in the country, and this has led the Board of Governors of the New England Outboard Motor Boat Association to formulate a set of rules to govern its racing. While these have not yet been fully adopted, the suggestions which will undoubtedly be embodied in the completed rules differ in some particulars from the rules used elsewhere. They will, in the main, follow the general outboard motor racing rules prescribed by the American Power Boat Association, with such variations as local conditions may seem to dictate.

It will be remembered that the New England Outboard Motor Association was formed last November by a group of outboard motor enthusiasts, for the purpose of encouraging this sport in all its forms. Many of the boats belonging to members of this association were successful in the several competitions held in New England last year, which started with the Boston Gold Cup Regatta in June. A much bigger and more enthusiastic program is already being formulated for the summer season of 1928, and May 30 has been selected as the opening date of the season with a Regatta on Lake Quinsigamond in Worcester. Every few weeks throughout the summer will see a different regatta at some prominent center, and between times, the members of the Association will interest themselves in other race meets throughout the east.

As tentatively proposed, the racing rules of the Association will provide several interesting sections. The first of these will be one, which provides for three different divisions of contestants. The first of these will be a novice division, comprising those who have never qualified in either first, second, or third place in any recognized regatta. The second or regular division will be those who have qualified in a recognized regatta, by securing a place among the winners, and the third will be a junior division for the youngsters who are just becoming interested, and whose age will range from 12 to 18 years. Drivers of boats may be admitted to the second division, that is, the regular division, at the discretion of the Regatta Committee, even though they may not have qualified as described, and in order to do this, contestants will be required to make a written application to this effect, and receive the permission of the Regatta Committee.

The first and third divisions outlined above, that is, the novice and the junior divisions, will be permitted to race only with standard engines as furnished from the stock of manufacturers, and except for the use of anti-cavitation devices as defined in the American Power Boat Association rules, must be unaltered.

The second division, on the other hand, shall be allowed to make any changes or additions to the engines

as may be deemed best by the operator, except in the internal bore of the engine, and its cubic inch displacement. This last item must not be altered in any way. This last provision varies somewhat from the provisions as they are now laid down.

Another point of interest is the overlap problem. The American Power Boat Association Racing Rules read: "An overlap may be established when two boats are on the same course or approximately the same course, and the overtaking boat no longer has a free choice on which side she shall pass. A boat shall not be justified in attempting to establish an overlap and thus force a passage between another boat and a mark at a turn after the latter boat has altered the helm for the purpose of rounding a mark." The New England Association has added to this clause as follows: "No overlap shall be established on the turn side of the pole boat within twenty yards of the turning mark." This addition has been made for the reason that not infrequently it has been shown that a boat having an overlap, or having a faster engine, will poke its nose between the mark and the pole boat, thus establishing an overlap, but that the boat cannot give way to the other which was establishing an overlap, as other boats next to it will not give way. In other words, a boat that has the overlap would be in a position where it would be necessary for ten or possibly fifteen other boats to be pushed aside in order to get space. Undoubtedly, the addition of this clause will be beneficial for these conditions.

Another provision which they will incorporate into the rules is vital and reads as follows: "When a boat is being overtaken by another competitor, the operator shall maintain his course, and not deliberately change his course for the purpose of hindering the overtaking boat. A violation of this rule will mean disqualification at the discretion of the Regatta Committee." In other words, an attempt is to be made to check occurrences which have been observed at several of the national regattas, where boats have swung back and forth repeatedly, throwing spray from the stern at a competing boat, making it impossible or extremely difficult to pass, which is strictly unethical in their judgment.

In an effort to standardize the methods of starting, and to suit the special operating conditions of the average outboard, a slight change will also be made in the method of starting races. These shall be started by the clock system, a clock being used to show not only the last sixty seconds prior to the start, but also the full preceding four minutes, before the start. It is believed that with the clock method of starting in use which would indicate the exact moment of the start, some excellent results will be attained. (Continued on page 118)

Laying Out a Race Course

(Continued from page 111)

surveyor can hope to establish independently at a reasonable cost. Let it be stated here that there is no such thing as an absolutely accurate survey. Surveys, are, or should be made, with a degree of precision commensurate with their importance. The more precise the work, the more expensive it is. A very high degree of precision would not be required in race course surveying as the fact that the course is defined by anchored buoys makes a very precise determination of its length impossible. A usual requirement is that the course must be within 20 feet of its designated length. This will not require unusually precise work on the part of the surveyor, but will be found to require a most careful location of the mark buoys. As an index of the degree of precision required of the surveyor, it may be stated that all triangles may be solved by plain trigonometry. All angles of the triangles used should be measured, however, and if the triangles are closed to within 15 seconds no appreciable error in the length of the course will be introduced by the survey work.

The location by triangulation from shore of each buoy of a group marking a wide radius turn on the course will in most cases be found impracticable. It is much more satisfactory and considerably cheaper to locate a mark at the center of the turn by means of triangulation from shore and then to place the mark buoys on the course with the help of a cork line. The cork line consists of a light graduated steel wire with cork floats attached to it a few feet apart. The wire should be 500 or 600 feet long. At slack tide when there is little wind, one end of it can be attached to the mark at the center of a turn and the cork line swept around in an arc to act as a guide in placing the buoys.

Where the depth of water is not prohibitive, it will be found much more convenient to define the center of the turns by heavy stakes than by buoys. If a buoy is necessary, it should preferably be a raft, large enough to carry a man, and must be securely moored with three anchors. If fairly long lines are used on these anchors with as little slack in them as possible, the rise and fall of the tide will not seriously affect the position of the buoy. The mark at the center of the turn is naturally to be located at the intersection of two lines defined from shore. It will be found very difficult and confusing to place such a mark at the intersection of two transit lines as the simultaneous signals which will be received from the two transits will be almost impossible to follow. The mark can be easily located, however, if temporary range marks are set on one of the intersecting lines defining its location and a transit is used to define the other line. It will be found easy to have a row boat or small launch run out on the range and place the mark upon receipt of a signal from the transit man that the intersection has been reached. The center of each turn on the course should be accurately marked in the manner outlined above. Any temporary shore marks or ranges used for the location of the centers of the turns should be left in place until after the regatta as they may be needed in case a mark or buoy should be disturbed or moved. If the course is a simple oval one it is also a good plan to set ranges ashore defining the center line of the course and the lines of buoys which will mark the straightaways. Let it be said here that the surveyor's work will be greatly expedited and its cost lessened if the regatta committee will place a couple of fast handy boats at his disposal with men who can maneuver and handle them expertly.

While the survey party is locating the marks at the centers of the turns, the buoys which are actually to define the course should be under construction. The old fashioned mark buoy generally consisted of a triangular raft carrying a light pole or mast to which a fair sized red flag was attached. Such a buoy is allright for sailing races and for marking a course to be used by slow types of motor craft. The flag is practically invisible, however, from a position dead to windward or leeward of it. For marking a course to be used by modern racing motor boats some sort of buoy should be used which is readily visible from any direction. Accompanying drawings show two types of buoy which have been found very successful. They are of the same general type. One, however, is a temporary affair designed to be used for a single regatta and then scrapped, while the other is intended to be a permanent addition to the equipment of the club as it is designed to take apart and stow readily. Photograph show buoys of both types. The anchors used in connection with such buoys had best be of concrete like the one shown in the photograph. Note the short piece of chain passing through the anchor and to which the mooring rope is attached. If the rope is attached directly to the concrete it will fray out in a surprisingly short time and allow the buoy to go adrift. Enough buoys should be made to clearly define the course. At the San Diego regatta in December, 1926, an oval

(Continued on page 118)



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The A.P.B.A. OUTBOARD RACING RULES

THE Outboard Racing Rules which are printed below are the rules governing this branch of the sport as printed in the Year Book of the American Power Boat Association. The general racing rules which apply to all forms of racing cover many details of rights of way, overlap, and similar conditions, which are not specifically referred to again in the extract. For full information on all phases of the racing rules, which are not covered below, it will be necessary to refer to the complete rules of the Association.

Outboard Motor Boat Rules

For the purpose of advancing interest in outboard motors, in the holding of speed contests between boats propelled by such motors, in the improvement and perfecting of models, construction, design and usefulness of both boats and motors these rules are submitted by the Outboard Motor Boat Contest Board to govern contests between boats propelled by outboard detachable motors.

1. All contests exclusively for outboards shall be managed by a duly appointed Race Committee of five persons and such others as these five may appoint who shall have supervision of the actual conduct of the races and full authority to enforce the rules.
2. Where outboard motor races are held in conjunction with other events a special committeeman shall be specifically assigned to supervision of the outboard events.
3. The races shall be run in accordance with the general rules and regulations of the American Power-Boat Association in force at the time of the race. The same rules and regulations will govern the items not here specifically provided for that apply to other motor boat races.
4. The course shall be not less than one nor more than six statute miles long, so laid out as to be visible the entire distance from the Committee stand. It shall be laid in waters free from dangerous obstructions and not in the path of commercial traffic.
5. Motors shall be divided into classes as follows:
Class A—Under 14 cu. in. piston displacement.
Class B—14 cu. in. and under 20 cu. in.
Class C—20 cu. in. and under 30 cu. in.
Class D—Unlimited as to boat, engine or driver.
Boats finishing first, second and third in the class in which they belong (or are allowed) may enter the class above during the same regatta provided the classes race separately, but no motor shall be entered in a class lower than the one in which it belongs without the written consent of all the contestants in the lower class. Where all classes start together each shall be entered only in its own class.
6. Any make of motor may be used but not more than one motor may be used to operate one boat. Re-boring of cylinders, increase of stroke or other internal changes to the motor are prohibited. Where standard motors are specified, parts may be removed but no parts may be added save those needed to avoid fire risk or prevent cavitation and these shall not include any working parts.
7. Where no specification of standard motors is made any addition to or modification or removal of parts will be permitted. Any changes from standard design however must be noted on or added to the entry blank.
8. There will be no restriction as to weight, finish or dimensions of hulls.
9. Since similar outfits make for better racing the local committee may if conditions warrant it, run similar boats as separate classes.
10. Nobody under 12 years of age shall be allowed in a competing boat. There will be no restriction as

to the number of the crew. Each member of the crew must be an amateur as defined by the American Power-Boat Association rules. Any person in the employ of a manufacturer of outboard motors is automatically disqualified.

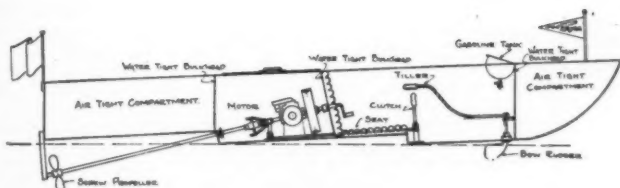
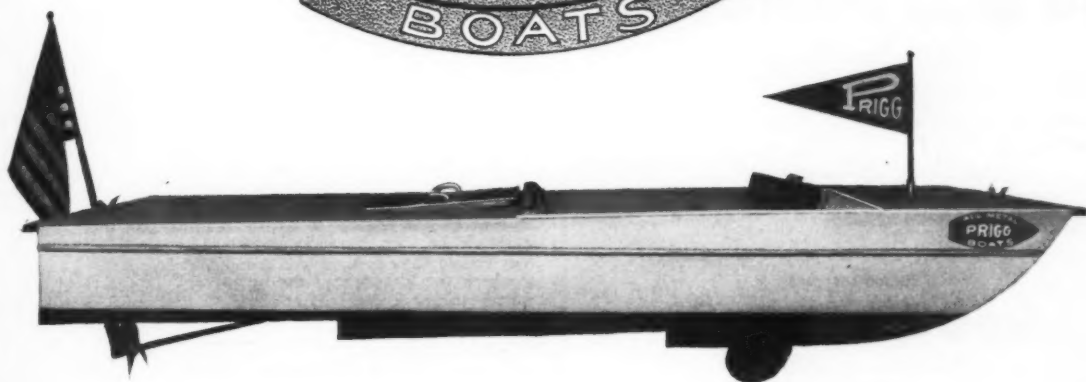
11. Entrants are expected to comply with the government regulations affecting their boats.
12. Life preservers must be worn by all members of the crew. Each competing boat must carry a hand fire extinguisher.
13. The method of starting shall be designated by the Committee in charge of the Contest. Any boat which crosses the starting line less than two seconds before the starting gun or signal will be penalized at the rate of two seconds for each mile of the race or heat.
14. Boats shall race without handicap or time allowance.
15. A race scheduled to start at a given time shall not be postponed for any cause except in the interest of public safety, unless the consent of every entrant is first obtained.
16. Contestants must report to the Committee an hour before the scheduled start of a race and again immediately after crossing the finishing line. Boats and motors shall be available for examination by the Committee or authorized representative, either the day before the first race or at least one hour before any race for the purpose of checking up the information required and furnished on the entry blank.
17. No protest concerning any driver will be considered by the Race Committee unless made in time for due consideration before a race starts. Wherever these matters are delegated to the Contest Board, the examination of entries will coincide with the time appointed by the Director in charge for the meeting of the drivers.
18. Club membership is not required of outboard entries.
19. Unless other provision is made boats shall be assigned starting positions in the order in which entries are received.
20. Not later than one day after the last race, the Race Committee, or the local representative of the Contest Board, shall post or issue a statement, giving in regard to each race the following information, listed in the order in which the entries finished:
1. The name of the driver. 2. The size, make and model of the boat. 3. The size and make of the motor. 4. The classification, if any, as to amateur, special, standard or non-standard motors. 5. The actual time, the miles per hour, or both.
21. All other racing conditions shall be governed by the General Racing Rules of the American Power-Boat Association.
22. All competing boats must have racing numbers painted on each side of the hull. No advertisements, signs or lettering of any character shall be attached to, or painted on the hull, other than the U. S. Government register number, the name of the boat or the pennant or insignia of the owner, none of which shall be more than six inches high. The name of the boat may be painted on top of the forward deck and on the stern transom if desired.

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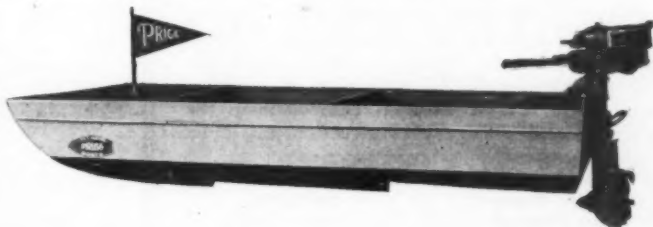
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Laying Out a Race Course

(Continued from page 115)

course was used with each turn defined by five buoys and with five buoys on each straightaway. Perhaps the buoys need not have been so closely placed on the straightaways, but at any event there were no complaints of insufficient marking of the course. The buoys and anchors should be ready to place as soon as the surveyor has completed the marking of the centers of the turns. This should be about a week before the day of the first race in order that the course may be ready two or three days before the races for the tuning up spins of the contestants.

The buoys will be placed by means of the cork line used in connection with the previously located marks at the centers of the turns, ranges ashore, and possibly a few sextant angles. In the absence of any shore ranges, the job can be done with the cork line if a man with a sextant is located at the center of the turn to properly space the buoys. On the straightaways the buoys can be placed most readily by means of a range. They can be satisfactorily spaced by eye. Every effort must be made to have the course ready for use two or three days before the races in order that contestants may familiarize themselves with it and use it in tuning up their craft.

The surveyor and his party should be kept on hand and available during the races so that in case of an accident involving the moving or carrying away of a buoy a replacement can quickly be located with the necessary degree of precision. Two or three spare buoys and anchors must be available for such contingencies. If no contingencies occur, it will do no harm to have the surveyor run over the course before each event or heat of the regatta to assure himself that everything is as it should be. If the shore ranges have been left in place, as they should have been, it will usually be possible for the surveyor to check the locations of the important buoys between races by simply taking a few sextant angles. In the above mentioned San Diego regatta this was done successfully.

New England Modifies Rules

(Continued from page 114)

The clause which required ten feet of clear water between overtaking boats has been eliminated since this amount of space is hardly necessary in the case of outboard engine craft.

A clause dealing with protests has been modified to read: "If through protest, the measurement of a boat or motor," which in this form includes both the boat and engine, rather than the boat alone, as in this form of racing, both components are vital to the success of the combination. A further condition will be included in the racing rules, which will require that junior drivers supply a waiver, signed for the season, covering all races under the jurisdiction of the organization, and signed by the parent or guardian.

A further condition governs the length of courses and this has been made to provide for race courses of not less than 2½ miles, and not exceeding six miles.

In the paragraphs pertaining to starting, a clause will read more or less as follows: "Any boat crossing the starting line before the starting gun and flag, shall be disqualified, unless the race is recalled at the discretion of the Regatta Committee." This in opposition to the point that was discussed at the Contest Board where it was figured to have a time penalty, but in the New England discussion it was brought out that the man with a really fast boat could afford to take this penalty, since the benefits he would derive from being out in smooth water would be so great as to justify his taking this penalty unless it was very large. The penalty would result in all the boats' jockeying to get this smooth water, with the result that there would be more false starts than under any other condition.

As mentioned, these rules are still in the tentative form, and their final adoption will undoubtedly take place in due time at subsequent meetings of the New England Outboard Motor Boat Association.

Expanding to South America

In continuation of the expansion of the Horace E. Dodge Boat Works organization abroad, announcement is made of the appointment of a new dealership in Rio de Janeiro, Brazil, with the firm of Braga Irmao & Cia. Demonstrating models have already been sent to these new Dodge dealers who report that a number of the fine yacht clubs have recently been formed in that section of South America and the interest in motor boating is growing rapidly. The Dodge Boat Works has noted a great increase in its export business and has recently established distributorships in Marseilles, France, Constantinople, Turkey and India.

CUTE-CRAFT

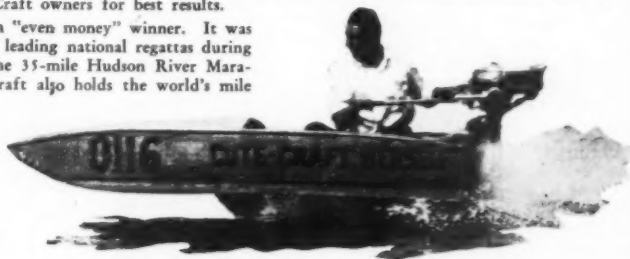
Wins General Oglethorpe Trophy



AT Savannah, Georgia, October 19th, Cute-Craft's Boy Friend, a stock model Cute-Craft driven by A. T. Buffington, won the General Oglethorpe Trophy in the Class B event against a field of fourteen contestants. Duplex Marine Engine Oil, Grade R, was used in winning this race, and we recommend it to all Cute-Craft owners for best results.

Cute-Craft is better than an "even money" winner. It was triumphant in many of the leading national regattas during the past season, and won the 35-mile Hudson River Marathon last summer. Cute-Craft also holds the world's mile trial record for Class B; speed, 25.593 M.P.H.

In the entire history of outboards no boat ever attracted greater attention than the Cute-Craft. It is light in weight, strong in construction, easy to maneuver, safe and seaworthy. If you want maximum speed—get a Cute-Craft.



Write for descriptive literature.

CUTE-CRAFT COMPANY

154 No. Main Street, Fall River, Mass.

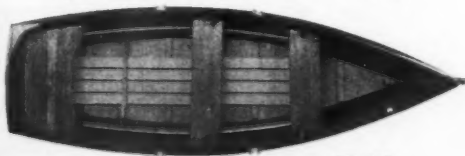
Southern Distributor:

RICHARD POPE, WINTERHAVEN BOAT CORP.
WINTERHAVEN, FLA.

Western Distributors:

RAYMOND V. MORRIS CO., INC.
SAN DIEGO, CALIF.

SEA FLAPPER



A Sea Going Dory Skiff

SEA FLAPPER is a safe, able and fast outboard motor boat having these essential qualities: Strength to stand all kinds of hard usage. Stability that makes it safe even for youngsters in rough water. Light draft. Ease of rowing and handling. Maximum speed with outboard motors.

Guaranteed to be strongly built of good quality materials and first-class workmanship.

THREE SIZES: 10, 12 and 14 Feet

Write for further information.

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Arlington, Mass.

WATCH CAILLE this YEAR

See the Caille announcement in the February issue—a new Caille Outboard Motor with incomparable, exclusive features.

CAILLE MOTOR COMPANY
DETROIT, MICH., U. S. A.

CAILLE

OUTBOARD MOTORS


PENN YAN BOATS

OUTBOARD MOTOR BOATS

5 Models for all requirements from family use to racing. Speeds up to 25 m.p.h.

DINGHIES

Four sizes of rowing and 3 sizes of sailing models. PENN YAN DINKS are justly famous.

ROWBOATS AND CANOES

A complete line of high grade small water craft for all purposes. Reasonably priced.

Send for free 26-page Catalog

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Speed Wheels

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have proved their supremacy

Write for Information

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OUTBOARD NOTES

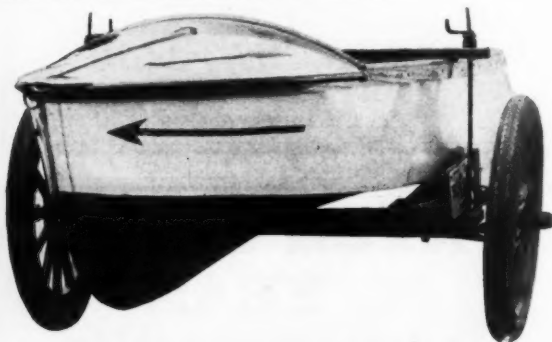
New Lockwood's Have No Pumps

In the past, water has been circulated through the cooling systems of outboard motors in three general ways: Plunger pump, centrifugal pump, and propellor force. The Lockwood Motor Co., manufacturers of the Lockwood Ace and Chief are now using a new method in their latest models. Passages are cast in the roots of the propellor blades on the back sides. When the propellor turns, water is sucked down from the water jacket and ejected. In the forward edge of the stream-line is a series of holes connected by a passage to the water jacket. Another passage is cast in the gear case and also connects through a copper pipe with the jacket.

The holes on the stream-line scoop the water under pressure. It flows up to the motor. The propellor passages suck it down again through the propellor shaft which is hollow. Pressure on the one end, suction on the other and it is claimed that it will operate perfectly at all speeds.

A Handy Small Boat Conveyor

An accessory which the outboard motor user should find particularly useful is a conveyor built up of a light axle and rubber tired wheels, so designed that it will hold and clamp an outboard motor boat securely to itself. The Mullins Body Corp. have undertaken to supply a conveyor of this type at a very moderate price, and with one of these it is a simple matter to hitch the boat on the trailer behind the family car, and start off for the lake or river. The conveyor can be backed right into the water, and the boat floated off readily and in drawing it out, the operation can be reversed. The use of a conveyor of this kind protects the boat from much unnecessary injury and damage.



The outboard boat conveyor as built by the Mullins Body Corporation for conveniently moving a small boat from place to place

Something New in Steel Boats

Steel boat types, an inboard motor model and an outboard have been recently developed by Paul Prigg, boat builder of Cincinnati and Miami, Florida. Both boats are ten footers built of Toncan, a copper bearing, rust resisting metal, heavily galvanized and zinc coated. All joints are lock seamed, riveted and soldered. All the fittings and hardware are of stainless steel known as Enduro.

Both models carry air-tight compartments at bow and stern and additional compartments which are water-tight, amidships. All in all there are four watertight compartments and two air-tight compartments giving what is probably the greatest degree of safety of any boat of this construction. Both have a scow type bow and are built with two steps.

The inboard model is a two-passenger boat powered with an 8 h.p. outboard power head mounted inboard, hooked up with a one-way clutch and the conventional drive shaft used in runabouts. The cockpit is forward of the motor. On the inboard model the rudder is at the bow and is handled by a tiller in the cockpit.

The outboard boat is very similar, with two steps and square bow. It has a capacity of four passengers. The speed of the inboard type and the outboard are both about twenty miles per hour or a little better.

Stern Makes Business Trip

J. Stern, assistant general manager of the Elto Outboard Motor Company, Milwaukee, has just returned from an extended business trip through the West. During his month's travels, he visited Winnipeg, Calgary and Vancouver, Canada, and the

principal cities of the West Coast and Rocky Mountain territory. He found a very satisfactory business condition as relating to the outboard motor field and predicts, for his company, the biggest year in its history. Dealers everywhere are elated over the performance of the company's new Speedster and already many dealers are eagerly seeking selling franchises for the coming year.



A Penn Yan Super-Buzz hydroplane moving along at a high rate of speed

Overland in an Outboard

Demonstrating milking machines, vacuum cleaners, and brushes on the road is not a new idea these days but traveling demonstrations of outboard motors don't happen every day and consequently this one of the Elto Outboard Motor Co. is attracting a great deal of attention.

H. B. Parker, manager of the Elto Sales Co., Boston, Distributors of the Elto Outboard Motor Co., is at present making an extended tour of the southeast coast and Florida making personal demonstrations of the new Super Elto Speedster. Mr. Parker's outfit consists of a specially-built trailer for carrying his Thomson Baby Stepper and two of the new Elto Speedster outboard motors. The motors are carried in the boat when traveling overland between demonstration points.



H. B. Parker, Manager of the Boston Elto Company, who is making an extended tour, carrying his boat and engine with him

The Latest in Outboard Boats

A new fourteen foot outboard boat is just being brought out by the Cape Cod Shipbuilding Corp. of Wareham, Mass. This little boat, with a 4 h.p. motor is capable of making twelve miles and over with two men in it. With one man in it, it is possible to get sixteen miles an hour, which is rather remarkable for such a large boat, being nearly fourteen feet long, and weighing 220 pounds.

This new craft is well built, strong and substantial. The sides are of one-half inch stock, cypress and cedar. The bottom is of native selected white pine one-half inch thick. The deck is of cedar and the washboard, of course, of oak. The seats and trimmings are mahogany or redwood, and the whole boat is varnished inside and out, and makes rather a nice looking job.

The arrangement of the motor in the stern is rather unique. The motor is installed in sort of a well or notch in the stern of the boat. This, according to the builders of the craft, allows the well or notch to be made the proper height to receive a motor, whereas, if the motor were put on the stern direct, it would be necessary to cut it down to about fifteen inches which makes a very low stern and is likely to throw the boat out of proportion. The boat has a liberal freeboard of more than usual depth, and makes a very good little knockabout for family use.



Outboard Motor Headquarters

will exhibit at the Motor Boat Show the 1927 winners and the 1928 models built by

HERBST BOAT WORKS

CUTE CRAFT COMPANY

D. N. KELLEY & SON-

AIRSHIPS, INC.

D. KIDNEY & SONS

GAS ENGINE & BOAT WORKS

LYMAN BOAT WORKS

These boats made nine records and won 49 leading places in the most important racing events of the past year. They are all sold by and demonstrated at

Outboard Motor Headquarters

BRUNO BECKHARD

Flushing Bridge

Flushing, N. Y.



Boats for racing or general use

The "Silver Streak" Line of boats are built for service—either racing or general use. They are masterfully designed for the utmost speed and safety.

The step-hydro is capable of speeds exceeding 30 miles per hour with Class C motors.

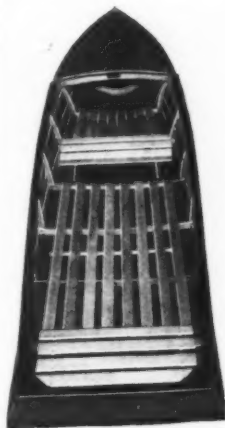
The "Runabout," or family boat, will do 20 to 25 miles per hour easily. Its capacity is six people.

Both boats are strongly built—oak framing with mahogany planking.

Write for bulletin and further information.

Isle La Plume
Boat Works

LACROSSE, WISCONSIN



View showing inside construction of the step-hydro. Note how ruggedly it is built.

HERBST SPECIAL — See it at the Show

Holder of
A. P. B. A.
 World's Record
 for Mile Trials

32.32 M. P. H.

Also holder of world's A. P. B. A. record for classes B and C in competition. Class B, 28.37 M. P. H.; Class C, 30.83 M. P. H.



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 Mezzanine Floor
 Grand Central Palace
 New York, January 20th to 23th

HERBST BOAT WORKS, Wilmington, North Carolina



DON'T BUY A BOAT

Until you have seen our exhibit of standardized sail, motor and row boats, at

Motor Boat Show

New York Grand Central Palace

January 20-28, 1928

CAPE COD SHIPBUILDING CORP.

Main Office, Showrooms and Works: **WAREHAM, MASS.**
 BOSTON OFFICE: 18 TREMONT ST.



EUREKA

One of four special boats for outboard motors.

Unquestionably "Again a Year Ahead"

On Nov. 14th, 1927

—under the official observation and timing
of C. F. Chapman, of the American Power
Boat Association

LOCKWOOD

OUTBOARD MOTORS
Exceeded ALL Previous
Official Outboard Motor
SPEED RECORDS



The Lockwood Line for 1928

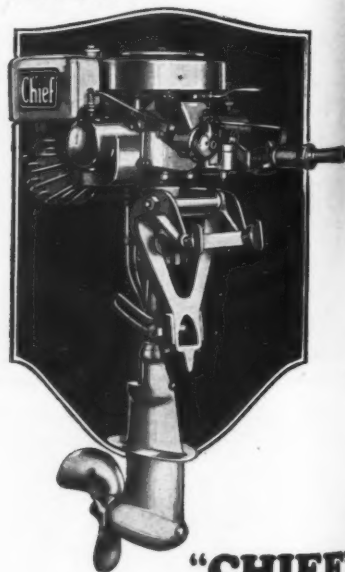
The Fastest — Finest Ever Built



MODEL "T"



"ACE"



"CHIEF"

Full announcement of the Lockwood Line and detailed information as to Lockwood's astonishing new speed records will appear in February magazines.

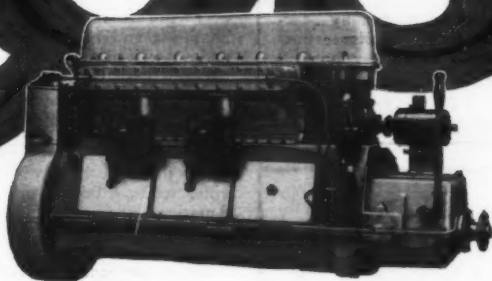
Dealers Territories now being assigned. Advance information on the official records and details on the Motors now available to established outboard motor dealers desiring to handle the Motor which is unquestionably "Again a Year Ahead."

LOCKWOOD MOTOR CO., 81 S. Jackson St., Jackson, Mich.

Advertising Index will be found on page 172

KERMATH

Low Cost



Not only is the Kermath's first cost the last cost, but also it's the lowest for value received.

For horsepower—for speed—for stamina—for long life—for downright dependability, the Kermath Boat Engine will cost you less than any comparable selection you might make.

A wide range of sizes and speeds from which to choose, yet each possesses the uncommon combination of simplicity, reliability and economy. Low cost! That's Kermath.

Write and tell us in what size or type you would be interested.

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5879 Commonwealth Avenue, Detroit, Michigan

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3 to 150 H. P.

\$135 to \$2300

"A Kermath Always Runs"

Boston Display Rooms—1037 Commonwealth Ave., Boston, Mass.

New York Display Rooms—50 W. 17th St., New York City

Please mention MOTOR BOATING, 119 West 40th St., New York

Rambles in Florida Waters

(Continued from page 28)

We had just grown used to the idea of sudden rough water after so many miles of mill-pond surface, when the problem of turning around came up. The waves were short. The crests were high and the troughs were deep. If there had been more room between waves, we would have undertaken the job of turning with more eagerness. However, we either had to turn around or back in, so we put the wheel hard over; grabbed for anything solid to hold onto; rolled over to what we guessed from experience on ocean liners as thirty degrees; came around with magnificent determination; caught a chaser on our full, broad stern, and in about three minutes were back in the placidity of the Halifax.

When we re-entered the river, we ran almost straight up to the lighthouse, and then eased off to follow the shoreline past Ponce Park and continue northward. On the way, we passed a spot marked Half-Dollar Island and this called for the remark from Ed that he didn't know any islands in Florida came that cheap.

Somebody told us that, years ago, a fisherman ran his boat onto the island and the owner objected. A hot argument followed and the fisherman, spendthrift that he was, bought the island for fifty cents; took possession then and there, and ordered the previous owner to depart forthwith and stay departed. Quite possible.

Where the river broadens out at Port Orange and passes under the drawbridge, it shallows from a general depth of 10 to 12 feet, to only 6 or 8, so we used due caution in passing Port Orange, Pelican Island and the mudbanks which lie on either side of the channel all the way up to Daytona, where we worked our way through the series of drawbridges and ran into the slip at the Matthews Boat Works as the most convenient place to tie up. Then, we wandered around this famous resort for a while. If we had had more time to stop at Daytona, we should have run over to the Halifax River Yacht Club where visiting boatmen always find a cordial welcome.

We left early, and because we wanted to reach St. Augustine that night, we let Charlie do a little galley work and had lunch on board. Going was good from the drawbridge at Ormond all the way up to the entrance to the canal, about four and a half miles above it, and here runs a stretch of the Inland Waterway that has caused most of the complaint.

The toll is high, ten cents per foot for yachts, and it doesn't appear that you get much for it. Water-depth is listed at three feet with plenty of soft mud under that. So, the combination of shallow water and deep mud lets boats slide through. We were told that boats drawing five feet get through all right but the middle of Graham Swamp is an uninviting place to get hung up. As soon as Judge Shares and his Commissioners get through with their work, and the Government has control of the canal, this uninviting stretch will probably be made as comfortable to navigate as the rest of the waterway. Follow the beacons!!!

This canal reaches the Matanzas River after a run of some seventeen miles and then about six miles more present the more open waters of Matanzas Inlet. There is a very hard sandbar here and it is well to let someone ride the bow with the bathhook and take soundings. Charlie's waist needed reducing, and it was rather rough, so we gave him the job. We got through without bumping and then wiggled along slowly for a half mile until we were abreast of old Fort Matanzas and dropped anchor to go ashore and look the old fort over.

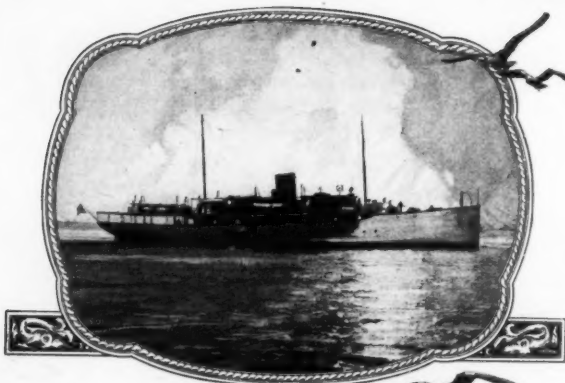
Every man to his taste, of course, but we commented at length and ad lib. on the winter visitors to Florida who plow along through these waters between new Smyrna and Jacksonville, without taking time to absorb the atmosphere of ancient America and re-enact in mind-made movies the romance and drama of the four hundred years of colorful history which lie behind this strip of our coast and under these ancient cities.

Anastasia Island, twelve miles long, forms the barrier here between the Inland Waterway and the Atlantic and how, in the old days, the Spaniard did lord it over this territory! And how jealous they were of it! Somewhere along here a ship was wrecked and the survivors managed to reach shore in safety but they were promptly killed because the Spaniards didn't feel like taking chances with trespassers. Happy days!

From Fort Matanzas to St. Augustine, the route winds around shoals as the Matanzas River widens and narrows until Anastasia Light, on the far side of the island, comes into view opposite the lower edge of the city. The water-depth through here is good and the markings plain enough for anyone to follow.

It was easy to run our responsive little 38 through here but how, we wondered, did the Spaniards manage to navigate these twisting, turning passages of uncertain depth, with their crazy

(Continued on page 128)



A Magnificent Yacht



THE M. Y. VIDOR, built by the Tebo Yacht Basin yard from designs by Henry J. Gielow, Inc., New York, for Mr. Victor Emanuel, New York, is an outstanding example of the work of this Organization.

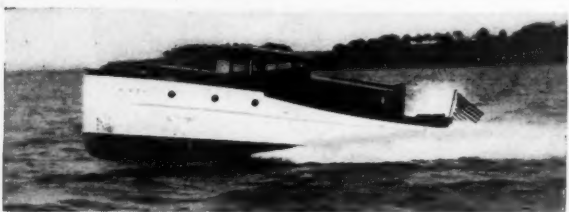
No more palatial craft has been launched in recent years. 171 feet in length and powered with two 800 horse power Diesel engines for a turn of speed of 15 knots per hour, this interesting yacht is especially seaworthy and luxurious not only in its appointments

but in its roominess for owner and guests.

The VIDOR is absolutely vibrationless. Other unusual features are the heating, ventilating, cooling and refrigeration systems designed and perfected for comfortable, leisurely cruising in all waters, under all climatic conditions.

Altogether, the VIDOR becomes the latest addition to America's most sumptuous and beautiful pleasure craft.

TODD DRY DOCK ENGINEERING & REPAIR CORPORATION
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TOPPAN Champion Llenroc II.

A Standardized Small Express Cruiser. Powered by Sterling. Built in 31 to 32½-ft. lengths. Order duplicate now for Spring delivery. Speed 25 to 30 miles per hour.

Circulars of above and other stock Toppan boats on request.

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Marine Engines

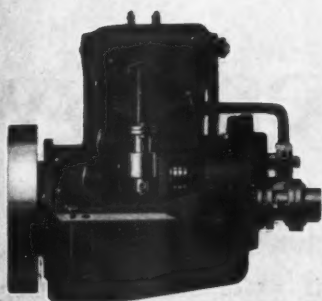
Built by "Gar" Wood

have proved themselves supreme in every test of stamina and speed in the greatest racing events of the world. A Gar Wood Marine Engine in your speed boat or cruiser means complete satisfaction.

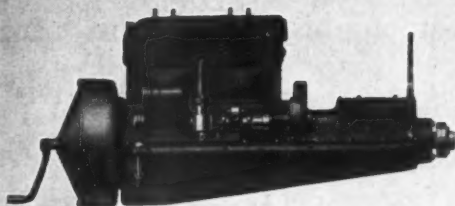
GAR WOOD, INC.

319 CONNECTICUT AVENUE

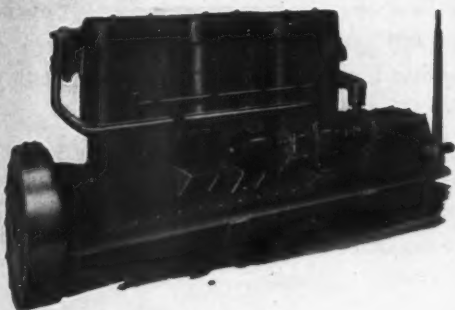
DETROIT



5½—9 H.P.
850—1400 R.P.M.
Model 27—without reverse gear
Model 27A—with 2 to 1 reduction gear
Model 28—with reverse gear and without reduction gear



12½—20 H.P.; 850—1400 R.P.M.
Model 416—with reverse gear
Model 416A—with 2 to 1 reduction gear and reverse gear



Built in four sizes:
85, 135, 180, and 190 H.P.

A Generation of Experience Produces a New Line of MIANUS 4 CYCLE Motors

The year 1899 saw the first MIANUS Motors driving power boats. Many of the same old two cycle motors are still giving satisfactory service in the same old boats.

Since 1899 many changes and improvements have been made in MIANUS Motors until now a complete line ranging from 3 to 15 H.P. in two cycle and 8 to 190 H.P. in four cycle, is ready to take care of almost any marine need. These engines have already proved that old MIANUS dependability is supplemented by new MIANUS performance, quick acceleration and freedom from vibration.

You will be interested in our literature showing and explaining our complete line of marine motors.

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—AND—
GASOLINE ENGINES

MIANUS DIESEL ENGINE COMPANY

30 McGee Avenue

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Branches and Agents in Principal Cities

See Our Exhibit at Booth N—New York Show

Please mention MOTOR BOATING, 119 West 40th St., New York

America's Foremost

Announces Two



1911 *Kitty Hawk. First 50 mile hydroplane in America. First to have propeller aft of transom.*



1912 *Oregon Kid. The first hydroplane of modern type. Bow rudder and aft propeller. Defeated all others in 1913 and 1914.*



1920 *Sure Cure. The first hydroplane to make laps over 65 miles an hour.*

THE man who has designed more successful speed boats than any other naval architect, the man who has originated the greatest number of ideas now accepted as standard for express runabouts and racing boats---among his achievements being

- the first 40 mile runabout (Hoosier, 1918)
- the first 50 mile hydroplane (Kitty Hawk, 1911)
- the forerunner of all modern hydroplanes (Oregon Kid, 1912)
- the first 60 mile hydroplane (Hawk Eye, 1913)
- the first 60 mile runabout (Nine ninety-nine, 1923)
- the first 65 mile hydroplane (Sure Cure, 1920)
- the first speed boat with propeller aft of the transom (Au Revoir, 1904)
- the first forward cockpit drive runabout (Dough Boy, 1917)
- the first bow rudder (Gretchen, 1911)
- the first displacement racer with narrow stern and outboard rudder (Rainbow III, 1923)
- the majority of national speed records of the past 20 years

Only one naval architect can point to such a record---John L. Hacker.

Most Famous Designer of Fine Motor Boats New Types for 1928

There are more successful boats of Hacker design now in service than have been produced by any other designer or builder. The fastest boats on the St. Lawrence, Lake George and scores of other famous boating centers are Hacker creations.

For 1928 John L. Hacker announces two new types that are easily the best designed, best built standardized runabouts ever offered. We can't begin to tell you all the exclusive features that make them at least a year ahead of any boats that will be offered for 1928. They are the product of 35 years of personal experience in designing, building and developing finer and better boats.

Don't miss these new types at the Show
Spaces L & M, (southeast corner, main floor)
Grand Central Palace, New York, Jan. 20-28th

HACKER BOAT COMPANY
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Adieu. Won Fisher Trophy in 1922 and 1924. Nick Nack, same design as Adieu, won Fisher Trophy in 1923. 1921



Edsel Ford's 999. The first 60 mile runabout in America. Made 61.4 m.p.h. 1923



Miss California, driven by Dick Loynes of Los Angeles, established new world's record for unlimited 151" class at San Diego, Dec 12th. 1927

FLORIDA-1928

This season will see the new

93-ft. Mathis-Built Houseboats

the center of interest in Southern waters. Their full-deck sterns, their trim yachtness, their real speed, their remarkable seaworthiness and their rare combination of comfort and ability to go anywhere make these 93-ft. boats the rivals of the finest yachts of 120 to 130 ft.

The **EALA**, built by us for Judge Robert W. Bingham, is illustrated as a typical boat of this new class.

**MATHIS YACHT
BUILDING COMPANY**
Cooper's Point, Camden, N. J.

**Houseboats and
Cruisers**
65 to 120 Feet



B. Schellenberg & Sons



EVERYTHING FOR THE PERSON OF THE YACHTSMAN, HIS OFFICERS AND HIS CREW

Clubs, yacht owners, commercial boat owners should take advantage of our almost 70 years' experience in outfitting the mariner, both inland and deep sea.

Crews and Club attendants furnished without charge

B. SCHELLENBERG & SONS

Established in 1857

99 to 105 Myrtle Avenue

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INTERNATIONAL-16

A STURDY ENGINE FOR RUNABOUTS, CRUISER AND WORK BOATS

The International-16 is built from the ground up for marine service. Four cylinders, four cycle. Bore 3 1/4 in., stroke 4 in. Develops 10 H.P. at 500 R.P.M. and 18 H.P. at 1200 R.P.M. You can depend upon the International for steady and economical service through many years. It runs smoothly, quietly, powerfully and free from vibrations. It is easy to start and easy to control because it is so flexible. And the price is within reach of any one's pocket.

JOES ENCLOSED REVERSE GEAR OPTIONAL AT \$75.00 ADDITIONAL

ELECTRIC STARTING OUTFIT COMPLETE \$100.00 EXTRA

Write for full particulars

SUTTER BROS.

Manufacturers of

INTERNATIONAL-16 MARINE ENGINE

44 Third Avenue

New York, N. Y.

Export Agent: Miranda Bros., 132 Nassau Street, New York

Rambles in Florida Waters

(Continued from page 124)

old galleons? We could cut the Kermath down to a speed that barely moved us in doubtful places but the old *conquistadores* must have had to sloop along, willy-nilly, as the wind blew.

Whoever decorated Anastasia Light must have had a sense of humor or a hangover of camouflaging from war days, because its 161 feet rise above the island like a giant barber pole. Probably somebody will argue that it makes it hard to see, but the sighting of Anastasia Light is good. It tells you that you have reached St. Augustine and St. Augustine is worth reaching no matter where you come from or where your world travels may have taken you.

Several anchorages are along the waterfront but we chose to run up beyond the new million-dollar Anastasia Bridge and anchor by old Fort Marion. It was still fairly early and we had had a comparatively easy day, so we decided to do some real cooking. The Spanish atmosphere had taken a firm hold on us and we thought it fitting that we have a Spanish steak and all the fixings, so Ed and I went ashore and got the makings.

We worked the galley overtime that night. Without encroaching upon George Rector's prerogatives, I'll tell you that a Spanish steak starts with tenderloin cut two inches thick. Put it on your broiler and sear the outside well. Turn your flame down and let it broil slowly until thoroughly heated through. Then, finish it off with a higher flame until the outside is richly browned.

The Spanish part comes, for four persons, from a can of button mushrooms, two green peppers, two medium onions, a level teaspoonful of celery salt, a generous dash of red pepper, salt and pepper as necessary, and a level tablespoonful of sugar. Don't forget the sugar. Use only water enough to assure cooking and when thoroughly cooked, add a lump of butter and stir well. THEN, pour it over the steaming steak and—there you are. Charlie and I manned the galley while our shipmates set the table in the cabin and, I'll tell you that I know many good clubs that offer less and in no such measure of comfort. Shoestring potatoes go best with this steak and we had them.

Such ambitious dinners are not usual on a cruise in boats no larger than ours but, and I have remarked before, on a cruise, we eat. Most of us like to cook and the galley is large enough and so splendidly equipped that we follow our inclinations. In the evening, we went ashore, saw a good picture and then came back aboard to sleep and dream of Spanish conquests, being run down by fleets of galleons, fired at by ancient cannon, and then to wake in the early morning and watch the rising sun play on the broad, blue waters and the ancient walls of the old fort. Too many shrimp after the show caused the dreams. St. Augustine is famous for its shrimp.

We took all the next day to see America's oldest city and revel in its antiquity. It almost surprised us to find that pieces of eight, doubloons, or pesos at least, are not the monies in use in St. Augustine. The city gates still stand and the oldest house in America contains endless displays of assemblies from the Spanish era. Ponce de Leon's well and the baptistry, where believers could be sprinkled voluntarily or under the lash, claimed our attention, but we found old Fort Marion most interesting of all.

Here is a fortress that required a hundred years to build, and it has withstood numerous attacks without ever approaching surrender. It is inspiring to sit on the rampart; look across the compound; and speculate as to the tremendous activity of hard men under hard masters, the isolation, the privation, the tremendous struggle of the first settlers, and try to understand their ambition, religious zeal, and the overwhelming fear under which they worked.

Truly, old Fort Marion is an American shrine but who is permitted to deface it with ill-advised repairs such as the erection of crudely made, concrete towers, the pouring of tar over its pavements, and the replacing of the old coquina steps with soft red brick? Who is it that is allowed to take a gob of concrete and plaster up any hole that seems to invite such activity? There's just as much coquina around St. Augustine today as there ever was. Why isn't old Fort Marion being restored with original materials instead of being repaired with whatever seems to be handy by any kind of an unfeeling mechanic who wants a day's work?

Ancient Japanese armor is very interesting and exhibits of it in their proper places are to be encouraged, but what place have they in old Fort Marion? There's a fitness of things even for old forts. I can't conceive of the Japanese, for instance, permitting an exhibit of early American costumes in one of their ancient temples. Before Fort Marion is further defaced, we decided that something should be done about perpetuating it in all its faithfulness for future generations. Authorities to supervise such restoration are available in Florida.

(Continued on page 130)



The beautiful Lorimer Trophy, won by an Evinrude Speeditwin at Oakland, Cal., Sept. 9, 1927. Evinrudes finished first, second and third in a field of 20 entries on a 4 1/2 mile course with twelve turns. Winning time, 0:33. Picture shows entrants rounding the buoy near the judges' bench.

88 Miles Record Open Sea Run

CLIMAXING victory after victory in racing meets, featured by decisively winning in seven of America's largest official regattas, a stock model Evinrude FASTWIN completed one of the most remarkable speed-endurance runs of the year on October 17th.

Setting out over 88 miles of open sea between Santa Barbara and Redondo Beach, California, Henry Hazzard covered the 88 miles in exactly four hours and fifty-five minutes—making phenomenal average speed.

Heavy fog, making the shore line and obstructions invisible, compelled but one stop. "Muy

Pronto," Hazzard's 100 pound, 12 foot boat, was swamped to the gunwales at times, but Evinrude FASTWIN, weighing but 49 pounds, never missed a shot.

Watch Evinrude in 1928!

Despite a year filled with records made and records broken, despite scores of complimentary letters from enthusiastic Evinrude dealers and users all over the world, the Evinrude Motor Company's plans for 1928 are going full speed ahead to again offer more power per pound and more features per dollar. Watch Evinrude in 1928!

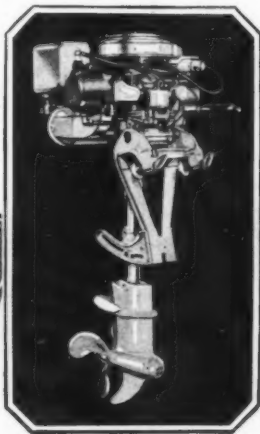
EVINRUDE MOTOR CO., 1111 - 27th St., Milwaukee, Wis.



Helen Hentschel, driving Evinrude Speeditwin, makes world's fastest speed trial time of 20.516 M.P.H., Detroit Regatta.



Kirk Ames, driving Evinrude Speeditwin, set new world's record of 26.22 M.P.H., Newport Regatta.



Evinrude Speeditwin

Frank Oswald, driving Evinrude Speeditwin at Washington Regatta, won A. C. F. Trophy, representative of Free-for-All Championship of America.



Evinrude Speeditwin, winning Lorimer Trophy, Oakland, Cal., setting new Pacific Coast record of 27.9 M.P.H.



The Only and Genuine **EVINRUDE** Speed, Power, Dependability

Please mention MOTOR BOATING, 119 West 40th St., New York

Kelvin & Wilfrid O. White Co.**38 Water St.
New York City****112 State St.
Boston****COMPASS EQUIPMENT**

Whether you need a plain compass in box, or in a binnacle—wood or brass—or set in the deck—we have the gear and everything else for navigation.



DECK PLATE COMPASSES
In 4", 5", 6" and 7" sizes. Complete,
ready to install.

Send for Illustrated Catalog

SEE
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AT THE
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MARINOBILE**The FORD Powered Motor Boat**

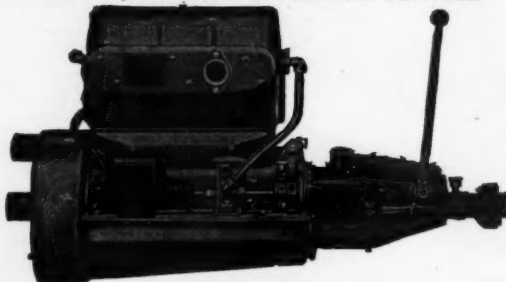
GUARANTEED speed better than twenty-five miles per hour.

Our Marine conversion appliance with patented oil cooler makes possible continuous running at high speed without overheating.

Write for catalogue.

TJ BUTLER

SHOWROOM AND SERVICE STATION:
470 PASSAIC AVENUE KEARNY, N. J.

**A NEW MODEL CADYFOUR
AN ENGINE WITH UNIVERSAL SERVICE**

MODEL EUMSA
C. N. CADY CO., 304 A, Center St., Canastota, N. Y.

Rambles in Florida Waters*(Continued from page 128)*

Addison Mizner, for instance, at Palm Beach, is an expert in such work and has, probably, the most intimate and comprehensive knowledge of Spanish art and architecture of any man in America. Why not enlist his aid? Well into the night, we sat in the cockpit and hurled invectives in what we thought must be the general direction of those responsible for such defacement.

With a last appreciative look, marred with resentment, we hauled the anchor aboard in the morning; gave the Kermath a spin; and sped out from under the walls of fort Marion to head northward into the Tolomato River. This river has plenty of water in the channel but it is as crooked as a corkscrew and, consequently, is very interesting. We enjoyed watching the fish and birds as well as the shoreline.

A run of about fifteen miles brought us to the entrance to the canal and another toll chain, and then we were off on our last northward lap of the cruise. When we reached the drawbridge for the Florida East Coast Railroad branch which runs down to Pablo Beach, we knew we were in Pablo Creek and that a seven-mile run would see us floating on the broad waters of the beautiful St. Johns. We crept cautiously past the sawmills because we had been told that logs have sunk in the creek at these points and a hole in the hull might result from a lack of care.

At the mouth of Pablo Creek, a stone jetty keeps the waters of the St. Johns and Pablo Creek from mixing things up too much. When we had passed this, and were really out in the middle of the St. Johns, it seemed to us that we had all the room in the world. And now, to reach our destination, all we had to do was follow the channel markers, open the Kermath up wide, and drive for Jacksonville twenty miles away.

The river was full of shipping but we felt just as important as anybody and enjoyed the special escort of porpoise which played about our bows for several miles. They puffed and blew, and slid in and out of the water with all the ease of effortless motion. Looking over the side, we could see others swimming circles around the boat and they put no more effort into their swimming than as though we had been standing still.

Jacksonville has taken on a really impressive skyline and gliding into its harbor in your own boat, under your own command, is genuinely thrilling and that goes for the most blasé individual afloat or ashore.

Here Is Something New

In the endeavor to produce larger and more powerful outboard engines, the ordinary user of these machines naturally would think only of increasing the size of the cylinders and retaining the generally accepted form of the two cylinder machine. A clever engineer has set his brain to work, and has adopted a radically different arrangement, and is bringing out a five cylinder, four cycle, radial type outboard engine. This is a startling innovation in machines of this type, and the engineers of the Cross Gear and Engine Company of Detroit should be complimented on their initiative. Some of the features of this little machine are particularly modern and worth mentioning. The crankshaft and connecting rod bearings are of the ball bearing type, which should insure well balanced operation. Lubrication to these interior parts will be by a pressure oil feed which is also a novelty for this type machine. The tanks will have large capacity for both gas and oil. The propeller will be of the puller type, that is, so arranged that it will always work in solid water. Ignition will be by Scintilla magneto, and Zenith carburetor is used. The horse-power developed by this machine will be about thirty, and tests will probably show most interesting results.

Club Notes

The Colonial Yacht Club of New York held its annual election recently at its New York City home, and changed some of its flag officers and committee heads. Vice Commodore E. London could not be persuaded to accept the office of Commodore and preferred to retain his present position as Vice. Douglas Rigney, Vice President of the A. H. Grebe Corporation, and owner of the radio broadcasting motor boat Mu-1, was elected to the office of Commodore, and E. H. Tucker, Secretary of the Cruising Club of America, and Chairman of the Race Committee of the New York Athletic Club, was elected to the position of Rear Commodore. The new Board of Governors is composed of Wilbur H. Young, Ira Hand, L. Strouse, DeWitt Davidson, and Frank Totten. The Secretary, John J. Conroy, has been retained in office, and P. Leserman, Jr., has been elected to the office of Treasurer.



SPEEDS around a mile a minute —silken power for sumptuous cruisers—infallible dependability for the fishing banks, patrol service or other commercial use—whatever the class of service there is an exactly suitable Hall-Scott engine. Any Hall-Scott engine takes less space per horsepower, less fuel and lubricant, and less attention.

The high torque at low speeds is a basic indication of excellent design,

durability and economy. The semi-supercharger which increases efficiency and prevents backfire risk; the perfected oil filtration; the silent, durable reduction gear, and a host of other features are typical of Hall-Scott advancement.

A matchless combination of brilliant performance and extreme utility—luxury with economy—makes "Hall-Scott" the favorite engine specification of noted designers.

HALL-SCOTT MOTOR CAR COMPANY
 Eastern Factory Branch: 217 West 57th Street, New York City
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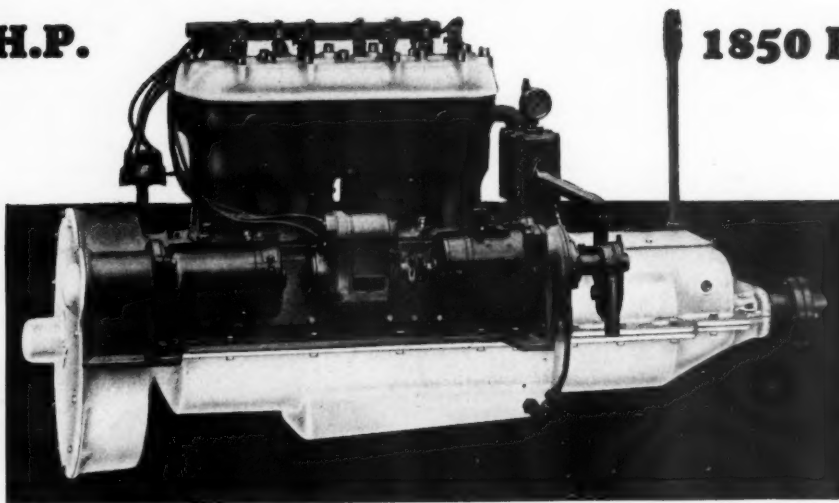
Please mention MOTOR BOATING, 119 West 40th St., New York

The New BRENNAN

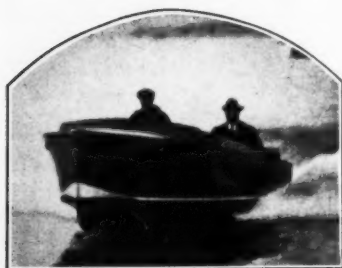
MODEL EE-4

70 H.P.

1850 R.P.M.



Especially Adapted for V-Bottom Runabouts



The new EE-4 BRENNAN drives this 20-foot V-bottom runabout at 30 miles an hour. Fitzgerald & Lee of Alexandria Bay, N. Y., are the builders.

BRENNAN again sets the pace for 1928 in announcing the new EE-4, a light-weight, four-cylinder motor, developing 70 H.P. at 1850 R.P.M. This engine, designed particularly for fast runabout service, has already proven its merit and won its spurs not only in exhaustive laboratory tests but in actual service.

Prominent among the many superior features of the new EE-4 are an alloy aluminum head and base, built-in oil cooling and filtering system of high efficiency, and a reverse gear giving a full 100% speed astern. This new BRENNAN is the outstanding motor offering in its power class for 1928, not only in performance, dependability, and economy, but also in dollar-for-dollar value.

Write to-day for complete details

There is a BRENNAN motor for every size
and type of boat up to 75-feet in length

STANDARD MODELS

N-4—Four cylinders, 15-40 H.P. Bore, 4"; Stroke, 5"
N-4—Four cylinders, 25-50 H.P. Bore, 4"; Stroke, 5"
E-4—Four cylinders, 25-50 H.P. Bore, 4½"; Stroke, 5"
E-4—Four cylinders, 50-70 H.P. Bore, 4½"; Stroke, 5"
D-4—Six cylinders, 50-75 H.P. Bore, 4½"; Stroke, 5"

DE LUXE MODELS

60—Six cylinders, 60-100 H.P. Bore, 4½"; Stroke, 5½"
100—Six cylinders, 100 H.P. Bore, 4½"; Stroke, 5½"
D-6—Six cylinders, 50-75 H.P. Bore, 4½"; Stroke, 5"
Gold Cup—Six cylinders, 200 H.P. Bore, 4½"; Stroke, 6½"
Master—Six cylinders, 225 H.P. Bore, 5"; Stroke, 6½"

All BRENNAN Motors have a full 100% reverse speed.

Catalog illustrating complete line sent on request

BRENNAN MOTOR MANUFACTURING CO.
500 East Water Street

Syracuse, New York

Watch

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Relative to Our

**NEW
FIVE CYLINDER
FOUR CYCLE
RADIAL OUTBOARD
MOTOR**

*Watch this magazine
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Gear & Engine Company

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Making Gears for Thirty Years



**SAVES ITS COST MANY TIMES OVER
THE MOST POWERFUL PREVENTIVE OF MARINE
GROWTH, BARNACLES AND BORERS. IT HAS NO
EQUAL IN TROPICAL AND SEMI-TROPICAL WATERS.**

**TWO HANDSOME AND LUMINOUS COLORS
EMERALD AND LIGHT GREEN, ALL DOUBLE STRENGTH**
Highly recommended and used by J. Murray Watts, Charles
D. Mower, John G. Alden, Henry J. Gielow, George Lawley &
Son Corp., Herreshoff Mfg. Co., The Matthews Boat Co., The
Elco Works, The Sea Sled Co., Ltd., Luder's Marine Construction
Co., and many other leading naval architects and by the
most reliable dealers and builders.

STEARNS-McKAY MFG. CO., Marblehead, Mass., U. S. A.

Standardized Accessories

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Standardized Boats

STANDARDIZED accessories for standard craft mean not only a lower cost for the complete boat but a much better boat. **WE** supply standard equipment and accessories for many of the most successful stock boat builders and it will pay you to send us your list of requirements for our prices or ask to have a representative call.

DURKEE-GUINAN CORPORATION
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40-FT. STOCK CRUISER

Two Cabins - Berths for Six

Powered with 150 H.P. (Kermath or Sterling). Speed 16 miles.
Stoutly Built—Durable—Comfortable—Safe.
Nothing quite like it in quality for the price.
For descriptive circular, price, specifications write

STAPLES, JOHNSON & CO.
Biddeford, Maine

"It costs less to build good boats in Maine"

The Newest in Gasoline Engines

(Continued from page 31)

and balancing the fastening near the center of piston travel.

The cylinder heads are made in pairs and can be detached without disconnecting the exhaust line or the fuel piping or manifolds. The valve seats and spark plug bosses are surrounded with cooling water. The combustion chamber is fully machined forming a smooth surface to which carbon does not readily adhere. Connecting rods are 18 inches long on centers, with main bearings four inches in diameter, 3 3/8 inches long. Oil is carried under pressure up to the piston pin. These piston pins are tubular, cut from solid nickel chromium steel two inches diameter.

The cam shaft bearings are oiled under pressure and the cams continually run in oil. Dual valves are used in the head. They are operated from the cam shaft by roller type push rods. In the building of valve in the head engines with valves operated by side push rods, the rocker arm, which opens the valve, describes a slight arc in its movement. This action tends to push the valve stem slightly sideways, ultimately wearing the guide hole oval, whereupon an excessive amount of oil drains down the valve stem and floods the valve. This has been overcome by interposing a member between the rocker arm and the valve stem so that the thrust on the valve is directly downward. This valve action will probably insure many thousands of miles without the need of valve grinding. It is common practice of Sterling engines in certain classes of service to attain 60,000 miles without grinding valves.

A full force feed oiling system is employed to all main bearings, connecting rod bearings and cam shaft bearings and to the piston pin. This oil is forced through a cooler attached to the side of the cylinder block and also strained through oil purifiers.

The cooling system consists of a very large bronze water pump with aluminum bronze gears having three times the life of ordinary gears. The water is pumped first to the cooling header on the side of the cylinder block, where it functions to cool the oil, and out holes that are provided to inject the water under pressure in the cylinder block between the cylinders. The water then passes up through internal passages, protected by brass ferrules set in cork (to prevent electrolysis) and, under a state of turbulence, literally flushes the heat out of the cylinder head, which is provided with more than ordinary cooling capacity.

The inlet and the exhaust manifolds are integral. The exhaust being water jacketed and by this arrangement hot spots are provided just about the carbureters, correctly gassingify the fuel.

The ignition can be provided for either 12 or 32 volts and consists of 4 distributors each firing 4 spark plugs per cylinder. All the plugs are in action, but in the event of one or more systems being down, the remainder would operate the engine. This system gives the hottest spark for starting, and under actual marine experience, is the most dependable and efficient devised.

The fuel efficiency, on three-quarter to full load conditions, is .65 pounds per brake horsepower per hour, an excellent efficiency for engines of this size. Three carbureters are used for the six cylinder engine and four for the eight cylinder engine. These are carefully tuned at the Sterling factory for maximum power and economy and should never be touched afterwards.

The entire interior of the engine crank case and all inactive surfaces which are in contact with oil are carefully cleaned by scraping and washing and are then painted with a paint impervious to hot oil.

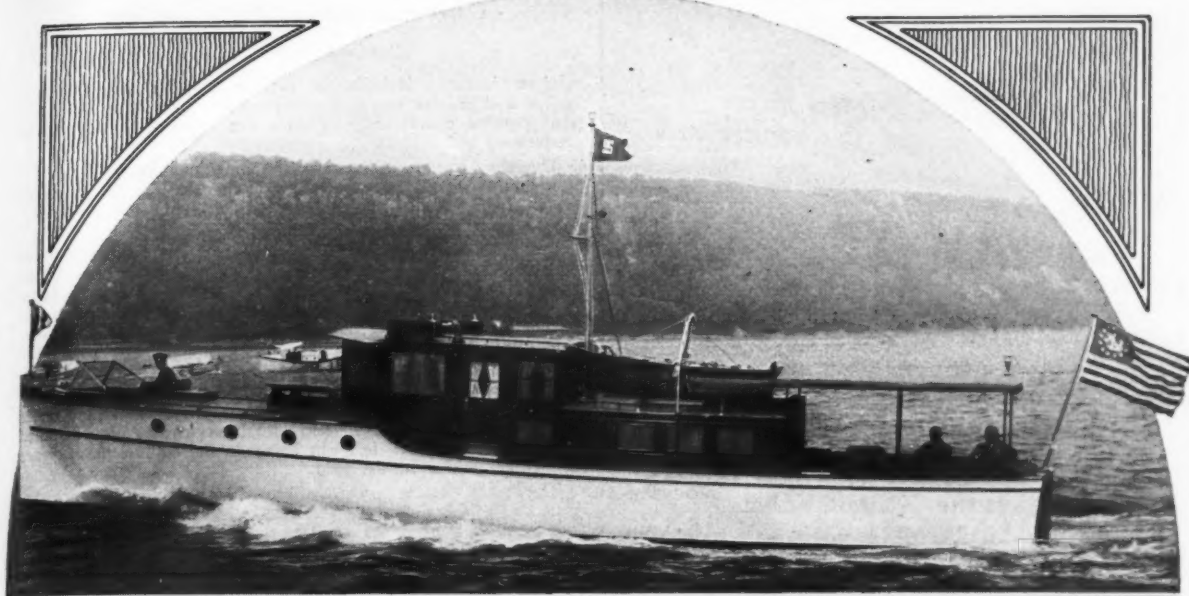
These engines apply to yachts of 75 to 150 feet in length. With reduction gears, which are being built to operate perfectly noiselessly (as in the Petrel reduction gear model) using gears that are full size for the power, the applicability is further extended.

A New Hydro-Glider

A new type of motor driven craft, an air-propelled hydro-glider, has been recently offered the motor boating world under the name of Saftiboat and will no doubt prove interesting to boating enthusiasts.

According to Brownback Motor Laboratories, Inc., of Norristown, Pa., manufacturers of the Saftiboat, this new craft offers an unparalleled opportunity for pleasure to people who live on or near shallow stretches of water. The boat, being air-propelled, is so constructed that it can safely skim along the shallow inlets, weedy inland streams, and over shoals that a deeper vessel might find rather embarrassing.

The Saftiboat, it is claimed, will not skid, porpoise or turn over and will safely and easily attain speeds of thirty and forty miles an hour with a dry cockpit. The engine is mounted in the air on the stern and in the smaller types will operate ten miles or better to a gallon of gas.



*See the latest Consolidated 50 foot creation
at the New York Motor Boat Show ..*

WE EXTEND you a cordial invitation to inspect the latest creation of the world's largest builders of fine pleasure craft—which will be exhibited at the New York Motor Boat Show January 20th—28th.

To insure that perfect coordination of design and power for which Consolidated Built Boats are famous, a Speedway Engine (Model MP) six cylinder is installed

—an engine famed wherever yachts float for its sturdiness and reliability.

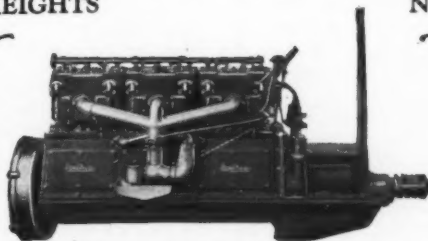
With the yachting season for 1928 but a few months away—we urge yacht owners to consider replacing their worn or inadequate power with a modern conservatively rated and reliable Speedway Engine.

Let us figure with you on your new boat—or re-powering your present one. Interesting illustrated printed matter will be furnished on request, not only for our Speedway Engine, but for any type of boat you have in mind—from our famous Playboat to a sea-going yacht.

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MORRIS HEIGHTS NEW YORK



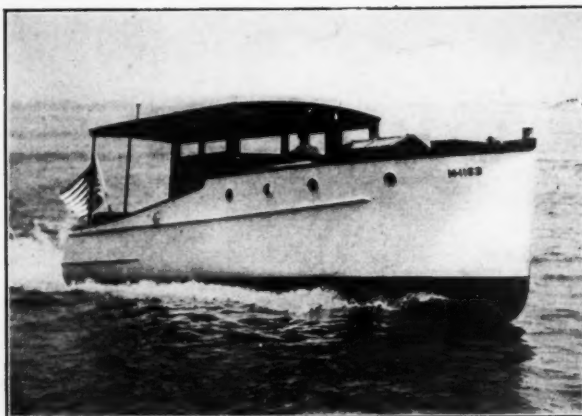
An insignia, known the world over
for quality in pleasure craft



Speedway engine, Model MP, 6 cylinder: 180 h.p.

Designers and Builders of
RUNABOUTS PLAYBOATS
DAY CRUISERS
NORTH AND SOUTH CRUISERS
MOTOR YACHTS
and the famous
SPEEDWAY ENGINE

Please mention MOTOR BOATING, 119 West 40th St., New York



Better Judgment Tells You
The MARCO CRUISER
Gives the Greatest Value

Special Model
 With 65 H. P. Engine
\$5,800

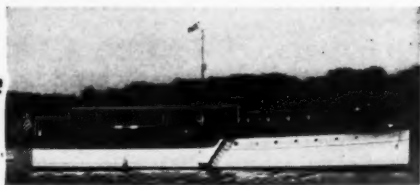
Standard Model
 With 35 H. P. Engine
\$4,800

COMPARE the 33-foot Marco cruiser, feature for feature, with any other boat of equal size, and your knowledge of boats will prove that the greatest value is given by the Marco. Graceful lines, rugged construction, careful comfort, a reliable six-cylinder power plant, 15 miles an hour speed, together with four roomy berths, generous locker space, lavatory, complete galley, built-in icebox and buffet, plus many additional refinements and conveniences that the discriminating yachtsman appreciates.

Write to-day for illustrated descriptive literature.

We have several exceptional bargains in used cruisers.

MARINE CONSTRUCTION CO.
 Wilmington : : Delaware



Marpassa, 77' long, 15' beam, two 6-cylinder 6 1/2" x 8 3/4", 75-100 horsepower, 20th Century Motors, designed and built by us, owned by Mr. H. D. Whiton, New York.

Let Us Build That Yacht for You!

WE will design and build you a yacht, completely furnished and equipped, including power, at prices that cannot be equalled when construction and finish are concerned. Our thirty years' experience in designing and building yachts assure you a boat that will give genuine satisfaction.

Let us submit plans and prices to you.

NEW YORK YACHT, LAUNCH & ENGINE CO.
 MORRIS HEIGHTS NEW YORK CITY

Rice 18 Foot Mahogany Motor Boats



Model A in action

All boats have lifting rings 14 feet apart for handling on davits or crane

Rice Brothers Corporation East Boothbay
 Maine

Model A with 10-15 h.p. Universal Flexifour Engine.
 Seats five people. Speed 14-16 miles\$1200.00

Model B with Six-40 Gray Engine. Seats six people. Speed 22-25 miles. \$1450.00

Universal Builds New Factory

(Continued from page 32)

modern features, including a private drinking water system, locker and shower rooms for employees. Large office quarters are provided overlooking an attractive terrace which is to be landscaped and beautified.

The shop equipment includes the most modern machines for precision work on a quantity production basis. All machines are individual electric motor driven which completely does away with belts and pulleys.

One of the most interesting features of the equipment from an engineering viewpoint is the experimental laboratory which is completely shut off from the main building. A new Sprague cradle type laboratory electric dynamometer of the latest model with all accessories is being installed in addition to the Company's present laboratory dynamometer which permits conducting all kinds of tests for the purpose of improving and bettering motors.

Special testing equipment to approximate conditions under which machines will be used in actual service has been installed so that a few weeks' test can be made the equivalent of years of actual service in the field.

The main testing room, where all production motors are tested, is equipped with two rows of electric dynamometers and every motor is given an accurate dynamometer test which practically assures 100 per cent. motors.

In addition to this new factory building, Universal has also recently added a new addition to their foundry building which provides facilities for making all their own castings in addition to supplying a large number of other manufacturing concerns.

The Universal Motor Company pioneered the small four-cylinder, four-cycle motor. Starting years ago with only one size, the well known Flexi-four 10-15 h.p. motor, (at that time rated 9-12 h.p.) Universal not only made this motor the most popular in its class but also built a world wide dealer organization, and today the products of the Universal Motor Company are shipped to practically every port in the world.

An insistent and ever growing demand for larger size motors of the same quality and performance features caused the Company to decide to enlarge its line. The Universal Super-four made in models from 15 to 50 h.p. was developed three years ago and met with instant favor. A line of six-cylinder and eight-cylinder motors is now being developed and will be announced as soon as production can be started.

The popularity of the small four-cylinder motor caused a demand for its use in other fields and the Company developed an industrial type of the same size for which there has been a large demand. As the motor was especially suitable for electric generator drive, the Company developed the well known Universal 4 kw direct connected, self-contained electric plant which, at that time, was a pioneer in its field. The good qualities of the machine attracted the attention of the Government engineers and about 2,000 were furnished the War Department for use in France.

Since the war the Company has gradually enlarged the electric plant line, and now sizes are available to fill practically all needs, from farm to small towns.

The Company also manufactures engine driven pumping units in sizes for which their engines are adaptable.

Thrilling Ocean Run with Outboard

A new outboard motor endurance record was set, out on the Pacific Coast, in October. Henry Hazard driving a small 12 foot hydroplane called Muy Pronto, powered by an Evinrude 4 h.p. Fastwin motor made a trip of 88 miles in the open sea from Santa Barbara to Redondo Beach. His actual running time was 4 hours 55 minutes, which is probably a record for this type of craft. The elapsed time was longer, due to the run being in two laps. Hazard would, no doubt, have made the trip in one lap if it had not been for the fog. When off Ventura he was forced to stop entirely for a time, due to the fog becoming so dense that the shore line could no longer be seen.

The conditions under which Hazard's trip was made are worthy of note. The ocean was rough—so much so that many times it was submerged almost to the flywheel. Time and again white caps swamped the boat to the gunwales forcing Hazard to bail the craft out with a funnel, the only thing he could use that would hold water. The fact that so small a boat powered with a small Evinrude outboard motor made such wonderful speed on the ocean for so long a distance, is remarkable in itself, but when it is realized that this run was made through partial fog and occasional squalls it becomes amazing.



New Dunphy Speed Boats!

Now you can get *everything* you want in a boat—at a popular price! Among runabouts and outboard motor boats—these exclusive Dunphy creations offer outstanding values.

Speed in abundance—with agile pick-up and ample power. Staunch, steady and seaworthy. Designed in accord with the Dunphy standards of beauty and true craftsmanship. Two of the best boats ever built by Dunphy—a name famous in the boating world for more than forty years.

Dunphy V Bottom Runabout

Pictured above. Length 17 ft. Beam 54 in. Mahogany planked, copper and brass fastened. Two comfortable cockpits, room for five passengers. Rumble seat forward. Equipped with Universal Flexi-Four Motor. Makes 23 miles per hour. With electric starter—\$1095. With hand starter—\$1025. (When powered with the Universal Super-Four Motor will make 35 miles per hour.)

Dunphy V Bottom Outboard Motor Boat

Pictured below. Length 16 ft. Beam 48 in. Batten seam construction. Copper and brass fastened. Makes 20 miles per hour with 4 H.P. motors—26 miles with 8 H.P. motors. Cedar planked style—\$175. In mahogany—\$250.

Everyone in the family will enjoy a Dunphy Boat. Write for the Dunphy Catalog with specifications, prices and complete information. You'll find it interesting.

See our display at the Motor Boat Mart, 1725 Diversey Blvd., Chicago. VON Lengerke & Antoine, Chicago Distributors.

Progressive representatives are invited to write for our dealers' arrangement.

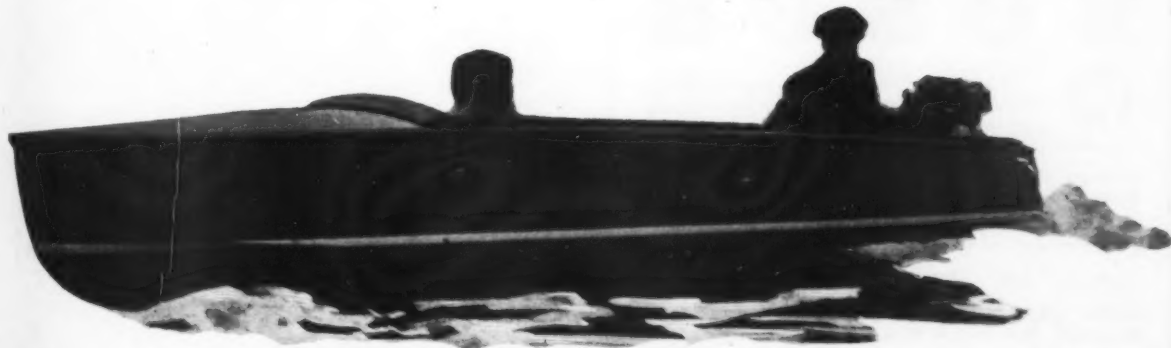
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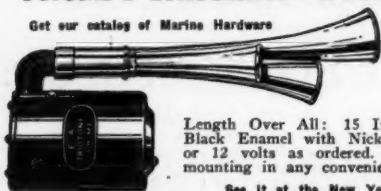


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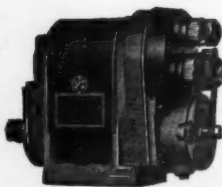
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Select Fastenings to Suit Work

(Continued from page 35)

the corrosive elements better than cold galvanizing.

In light construction screws have a decided advantage over riveted fastenings. The use of screws allows the builder to graduate the binding strength, which he wishes to obtain, to a nicety, without the jarring effect which accompanies riveting. The heading up of light copper rivets very often produces a condition illustrated in Fig. 4—the body of the rivet buckles and very often causes the light planking or the ribs to split.

The use of bolts in bilge stringers and in the bow post assembly is common practice, galvanized bolts being popular in this respect. The practice of actually sewing on extremely light planking is expensive and short lived, but as its use is limited to racing craft, it suits the purpose.

In an earlier day the use of trunnels (treenails) was an accepted practice in boat yards, but today their use is limited to commercial craft and in some instances in fine deck construction. The use of treenails presupposed a bored hole of correct diameter as well as a treenail of uniform body and diameter. The same condition is desirable in the use of metal fastenings, even the rough galvanized boat nail will lose much of its holding power if inserted in a hole of too great diameter.

J. E. M., Norwich, Conn.

A Comparison of Types

Copper rivets

ADVANTAGES

Non-corrosive, easy to work.

DISADVANTAGES

Expensive, heads show on finished work, require time and two men to drive. Must be drilled for.

Galvanized rivets

Not used except drifts.

Black iron rivets

Not practical in salt, and corrode in fresh water.

Copper nails

Non-corrosive.

Except in large spikes, too soft, or if hard, usually brittle. Expensive. Must drill for.

Galvanized nails

Cheaper and much stronger than copper, clinch well. No drilling nor counterboring and plugging.

None if high grade galvanizing; poor grade will strip and corrode.

Black iron nails

Same as black iron rivets above.

Brass screws

Fairly non-corrosive. Neat for finished work, especially interior.

Expensive, not very strong, must be drilled for and wood plugged.

Galvanized screws

Cheaper and much stronger than brass. Hold well.

Same as galvanized nails. Must be drilled for and plugged.

Black screws

Same as all black iron fastenings.

Brass lag screws

Fairly non-corrosive.

Expensive and not very strong.

Bronze lag screws

Non-corrosive, stronger than brass.

Galvanized lags

Cheaper and stronger than bronze.

Same as for galvanized nails.

Black lags

Only for heavy work on fresh water hulls.

Copper drift bolts

Non-corrosive.

Expensive, require larger hole than iron thus hold less for same diameters, unless riveted.

Bronze drift bolts

Non-corrosive and stronger than copper.

Expensive.

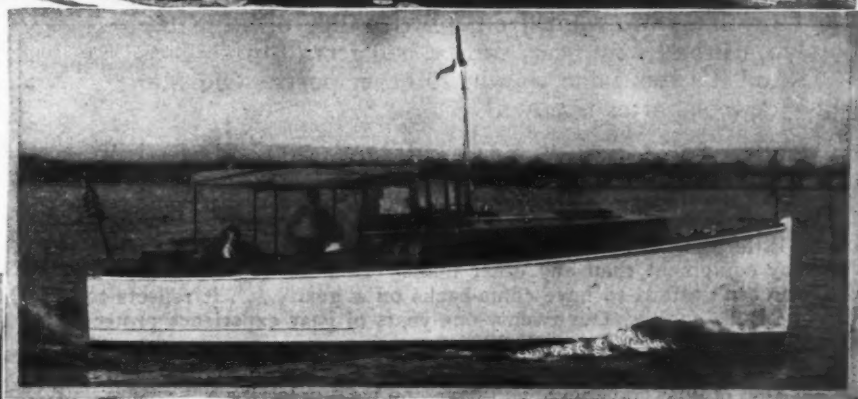
(Continued on page 142)

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Forward of the cockpit under the main trunk are located the galley, main cabin and fully equipped toilet room with linen shelves and clothes lockers.

Entrance from cockpit is direct into a spacious galley, fully equipped with chinaware, silver, cooking utensils, stove, icebox, sink, dish lockers and dressers.

Back rests of berths swing up to form upper berths—thus providing night accommodations for six people—four in main cabin—two in stateroom.

Beam, 9 ft. 6 in. Draft, 2 ft. 4½ in. Gasoline capacity (2 tanks) 50 gals. Water tank, 30 gals. Cruising radius, 250 miles. Speed, 10-11 M. P. H.

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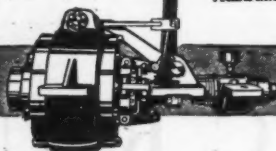
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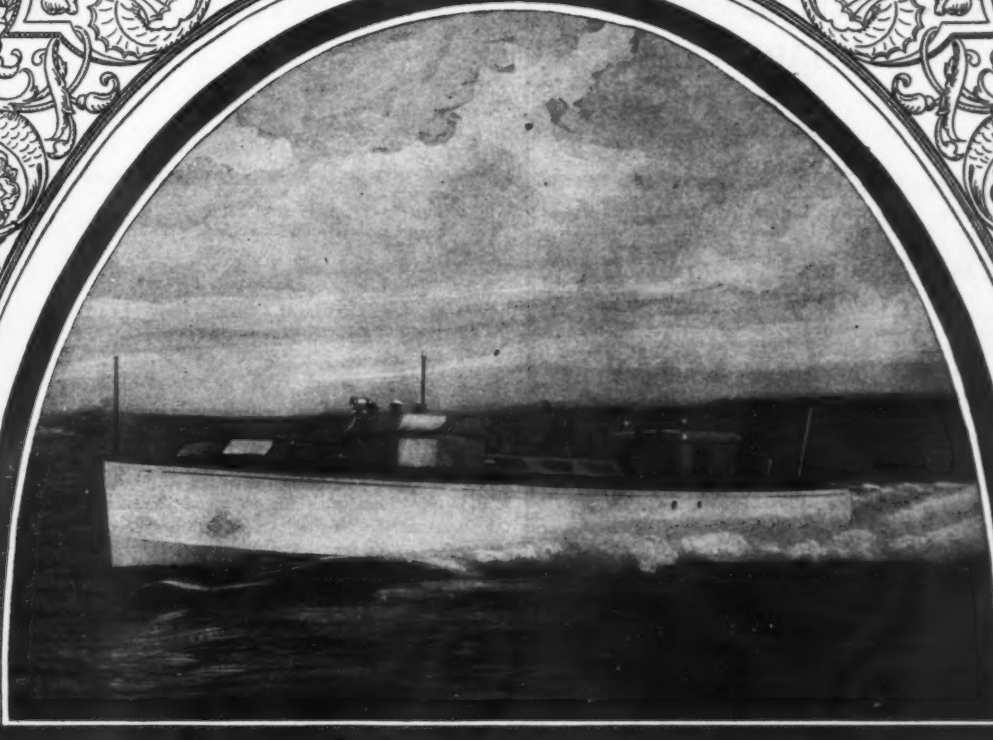
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This 1100 H. P. gives a turn of speed of about 40 miles per hour.


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Eye BoltsNails
Chucks
ClocksHawse Pipes
Fenders
Pumps**MOTOR BOAT FITTINGS****Select Fastenings to Suit Work**

(Continued from page 138)

Galvanized drift boltsCheaper and stronger than Same as galvanized nails,
above. Hold tightly.**Black drift bolts**Only for heavy work on fresh
water hulls.**Copper tacks**Non-corrosive. Heads can be Expensive and rather soft.
smoothed flush with skin on
light hull work. Wear well
and keep smooth on canvas
decks.**Galvanized tacks**Cheaper and stronger than Likely to corrode and heads will
copper. rust. Cannot smooth heads
flush.**Monel metal and special alloys**Non-corrosive and sometimes Expensive and may require spe-
non-tarnishing. Strong. cial orders.

NOTE:—Care should be used in combining galvanized iron and
brass or bronze fastenings on underbody in salt water.
Sometimes the iron and sometimes the brass fasten-
ings, or both will be corroded or eaten away.
For stern bearing or stuffing box or any fitting that
must be removed at any time, hanger bolts are much
better than ordinary lag screws, as body of bolt re-
mains in place permanently.

HOW TO APPLY TO BEST ADVANTAGE**Copper rivets**Drill for, plank and frame, counterbore for heads in planking,
cover with wood plugs smoothed flush with planking and set in
white lead or varnish. Head over neatly and do not bend body
of rivet.**Copper nails**Drill for, plugging optional. Little use in clinching as not
sufficient strength in copper. If hard and brittle, anneal, but not
too much.**Galvanized nails**Usually driven without drilling; choose nail long enough to
nearly go through frame, or if clinched, do not drive head back
in clinching. Use helper with weight held against heads.**Brass screws**Drill for, counterbore and plug as with rivets. Body drill
plenty large to prevent twisting screw off. Use soap on screws.
Use brace with screwdriver bit, or electric driver. Screws not
to come through frames.**Galvanized screws**

Same, but smaller body drill.

Brass lag screwsDrill size of body at bottom of threads, also for body under
head. Use soap and do not turn up too hard.**Bronze lags**

Same, but can set up tighter.

Galvanized iron lagsWill stand more strain and can use smaller body drill, but
do not scrape galvanizing off of heads when driving.**Copper drifts. Bronze drifts.**Use care in choosing drill, or drift will bind part way in.
If possible, rivet over one or both ends.**Galvanized drifts.**Take body drill say three-quarters diameter of drift. Not much
danger of buckling and can be set up tightly. If possible, use
clinch rings under drift heads, but beware of cast (sometimes
galvanized) iron clinch rings. H. H. P., Los Gatos, Calif.**Detroit Marine
Big Six**For high speed runabouts and express cruisers the
Detroit Marine Big Six (300 H.P.) engines not only
give excellent and economical service but have a
wide range of flexibility and are unusually free from
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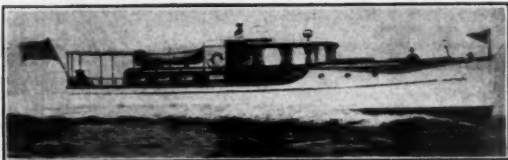
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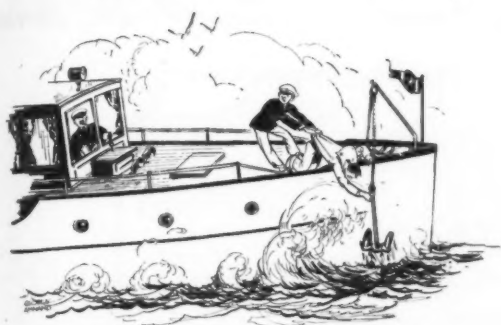
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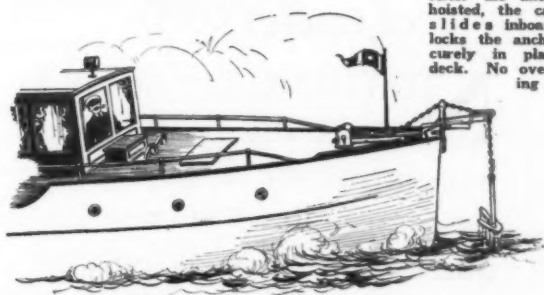
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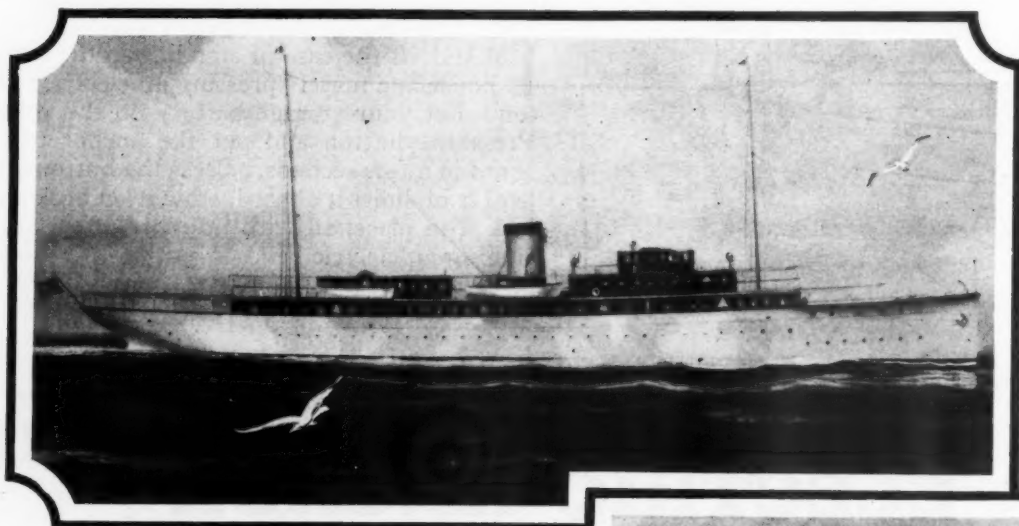
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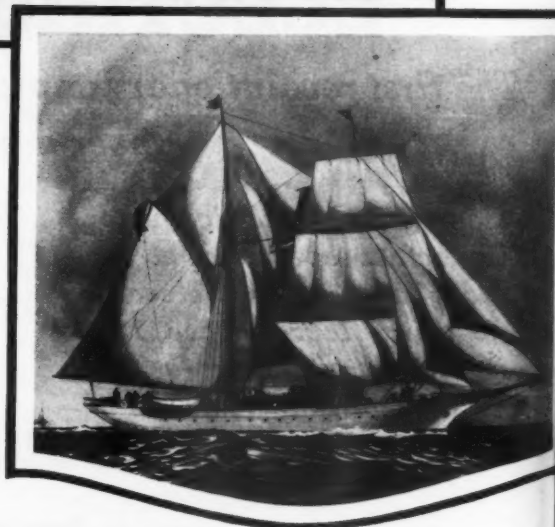
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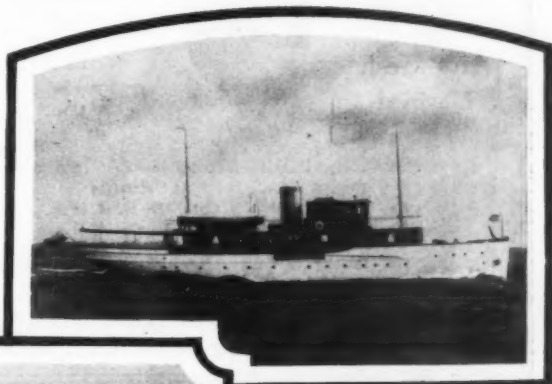
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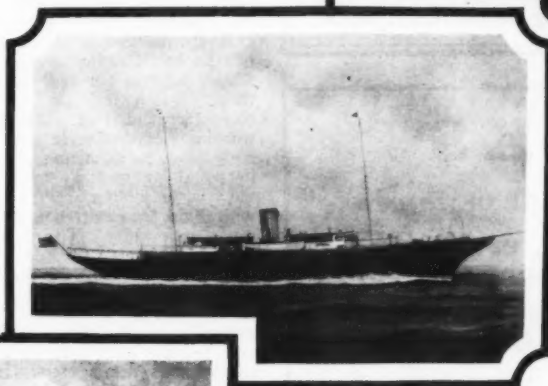
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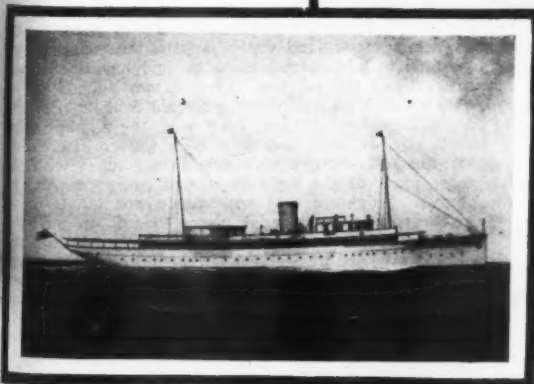
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Every Purpose**

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SAYVILLE, N. Y.

Preventing Trouble from Sediment

(Continued from page 37)

of the tank for inspection. Even after being washed with hot water and left open for a week there may be enough fumes left to light up the inside of the tank in good shape when set off by a match or other flame. Use a flash light or a small electric trouble light, or reflect the sun inside the tank with a mirror and there will be no explosion or puff out through the filler opening. Disconnect the fuel piping at the tank and screw in a shut off that has been bushed to allow a rubber hose to slip over the pipe. Fill the tank from half to three-quarters full with a strong salsoda solution and boil the solution in the tank, leaving the cap off. Where a steam line can be tapped, steam under a pressure of fifteen or twenty pounds admitted through the tank outlet to the carburetor will do good work. Notches may be cut in the end of a piece of pipe and the notched end inserted to the bottom of the tank through the filler opening and the steam hose attached.

Where steam is not available it can be generated by placing a five gallon oil can on its side over a two-burner oil stove, filling the can about one-third with water and starting the burners full blast. Place this improvised boiler higher than the tank so that water from the tank can flow into the boiler. Boil from twenty minutes to a half hour and before the small particles have a chance to settle, draw off through a strainer into a pail or let settle in the pail in order that the amount of sediment may be observed. Rinse with clean hot water and if necessary, repeat the boiling operation, using the same salsoda solution. Rinse thoroughly with hot water and if you like to play with steam, as most boys do, boil her up again and the tank will be cleaner than when new. Being hot the tank will soon dry and it would not be a good idea to leave a clean tank open any longer than necessary. Don't replace the supply pipe to the carburetor without cleaning it with the salsoda solution.

An acid treatment can be highly recommended for cleaning smaller tanks. The treatment is no less effective on larger tanks which, in most cases, need not be filled with the acid solution as the sediment and rust will collect in the lower part of the tank. Filling the tank one-quarter to one-third full will assure the solution reaching practically all the scale and sediment.

Hydrofluoric acid produces the best results with least danger of the metal being attacked. Treat the tank with approximately a three per cent solution of hydrofluoric acid for from three to four hours. The acid will loosen and in time dissolve the sand, rust, scale, etc., when it is readily removed by washing. Hydrofluoric acid readily attacks glass but is exceedingly slow in its action on metals, so much so that it is kept in metal or special composition bottles. After drawing off the acid solution rinse the tank with hot water and then treat with lime water to neutralize any remaining acid, and again wash with water. The tank cannot be washed too much with clean hot water.

Don't throw out the hydrofluoric acid solution after it is drawn from the tank. The same treatment should be applied to the fuel line, and when overhauling the engine clean the water jackets by the same method.

A ten per cent solution of sulphuric acid has been recommended for cleaning tanks and water jackets, but extreme care must be exercised in mixing and using the sulphuric acid solution. Before making the solution, dissolve two pounds of bicarbonate of soda in a pail of water. Should acid or the solution get on the hands or clothing, flood with the alkaline solution of bicarbonate of soda and then with water. Take care that none of the full strength acid comes in contact with the hands or other parts of the body as it will cause painful and dangerous burns. Sulphuric acid will ruin cotton goods in no time. Even the solution will cause pieces to fall out of your overalls wherever a drop has landed. The mixing of sulphuric acid and water is attended by a chemical reaction liberating much heat and should be done slowly. In mixing, pour the acid very slowly into the water and under no circumstances pour water into the acid. Two pounds of commercial sulphuric acid (oil of vitrol) to a ten quart pail of water will give about a ten per cent solution.

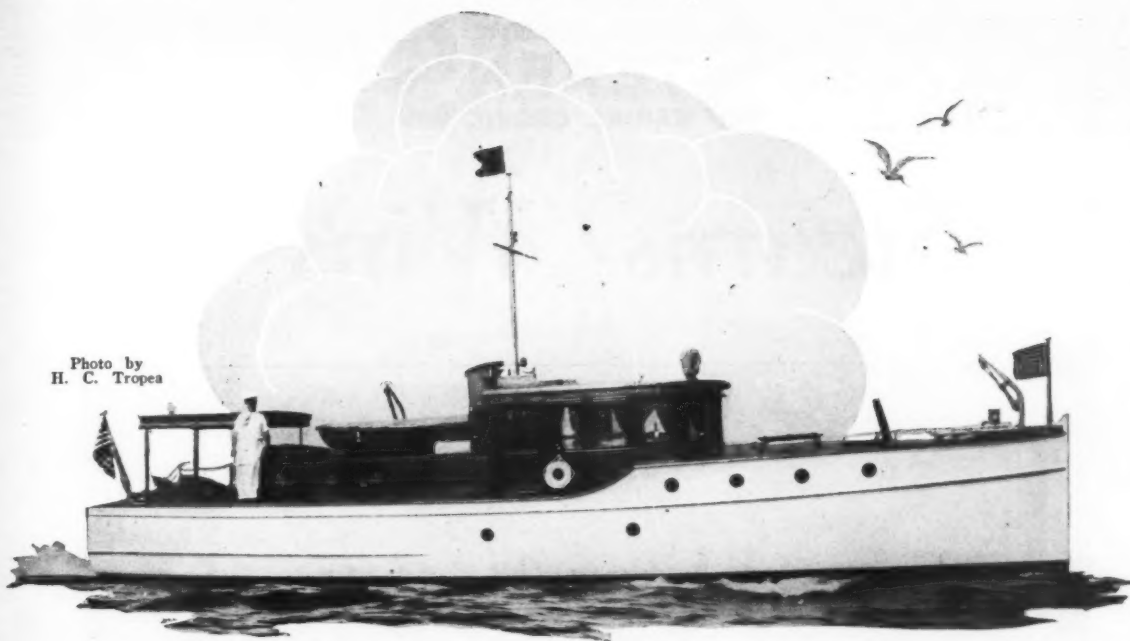
Allow the sulphuric acid solution to remain in the tank for not over twenty minutes. Then draw it off and immediately wash with hot water, followed by a neutralizing bath of the bicarbonate of soda solution previously mixed, and again with water.

Muriatic acid has been used in the same capacity and the results have been satisfactory. The method is the same as with sulphuric acid.

Since it is practically impossible to prevent sediment from collecting in the fuel tank it is advisable to provide a means of preventing the sediment from entering the supply pipe to the

(Continued on page 150)

Photo by
H. C. Tropea



Important Announcement Regarding the Vinyard Fifty-Footer

PURCHASERS of the famous Vinyard Fifty-Footer, Twin-Screw, Express Cruiser can now have the interior arranged to suit their particular ideas. Furthermore, you also have a choice of any standard make of power plant.

The Vinyard Fifty-Footer commands a leading position in popularity with long-experienced yachtsmen because it is built the way a boat should be built. Only the finest selected materials are used, nothing is sacrificed for quality, and the workmanship is of the highest standard. For instance, we use a one-piece keel cut from virgin white oak. This not only gives extra strength but it provides a solid foundation and minimizes vibration.



For extended cruising, off-shore as well as inland, you will find this beautiful motor yacht is unsurpassed for comfort, seaworthiness, and ease of operation. It is a one-man control boat, all operating controls being centered on the enclosed bridge, which gives full vision fore and aft. Modern conveniences such as a Frigidaire electric refrigerator, and a Delco electric lighting plant are standard equipment. Perhaps the most astonishing thing about the Vinyard Fifty-Footer Twin-Screw, Express Cruiser is the extremely low price, a price which marks it as unquestionably the greatest value in present day cruisers. Let us tell you about it.

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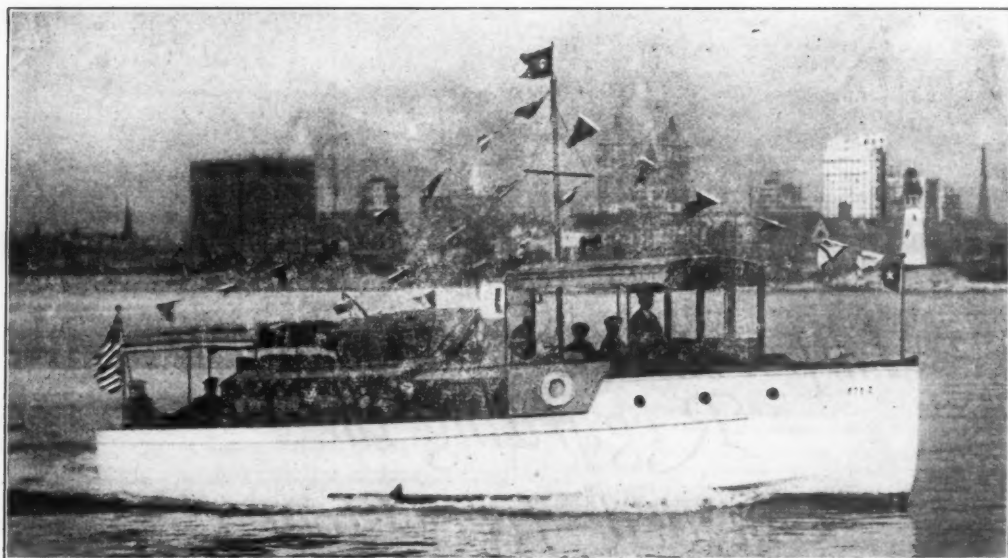
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FINER WORKMANSHIP
MORE ECONOMICAL
LASTING ENDURANCE

Stearns Wins—



Mercedes, owned by Charles W. Guernsey of the Buffalo Yacht Club

ON August 27th a fleet of nine cruisers started from the Buffalo Yacht Club in the annual long distance race for the Great Lakes Cruise Cup over a 97.65 mile course on Lake Erie. Through one rain squall after another, and through heavy seas, the boats plowed on and on, necessitating extra care in navigation and seamanship, but above all an absolutely reliable power plant to win the race. The 40-foot cruiser Mercedes, powered with a model MDU, four-cylinder, Stearns Extra Reserve Marine Engine, won the race in good time. Read what Charles W. Guernsey, owner of the Mercedes, says:

"Regarding the Stearns MDU-4 motor, with which the Mercedes is powered, I would like to say that it performed beautifully, never failing to respond with its extra reserve of power each and every time it was called upon during the race when I was pressed by my nearest competitor."

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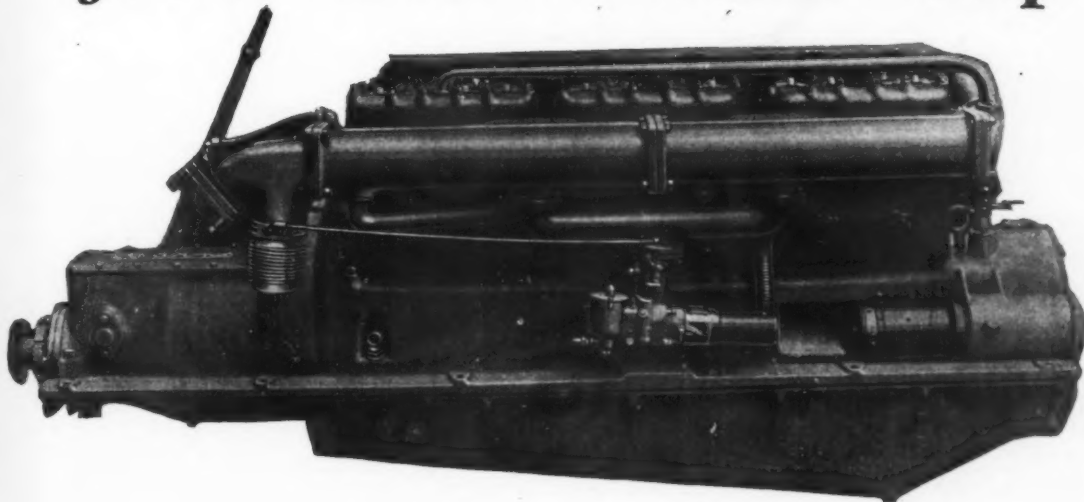
STEARN'S
MARINE ENGINE

FINER WORKMANSHIP

MORE ECONOMICAL

LASTING ENDURANCE

Great Lakes Cruiser Cup

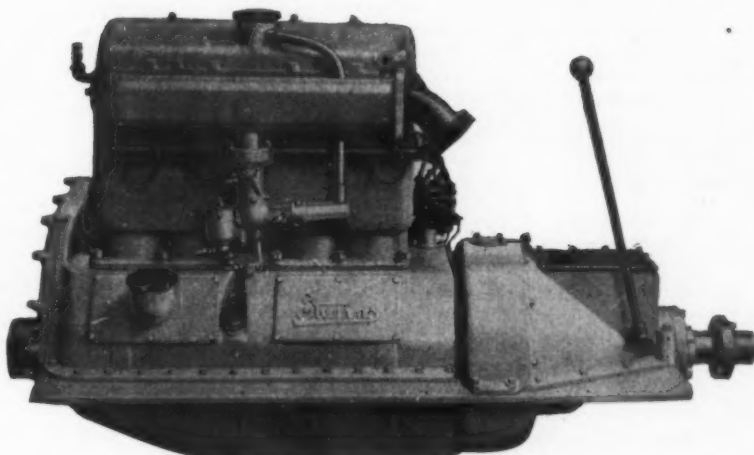


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IT is a decided advantage and a wonderful feeling to know when you set out in a boat powered by a Stearns Extra Reserve Marine Engine, that its *plus* power is there if you need it. This extra power is seldom required, but so vital in an emergency or race that you cannot very well be without it. So make your next power plant a Stearns.

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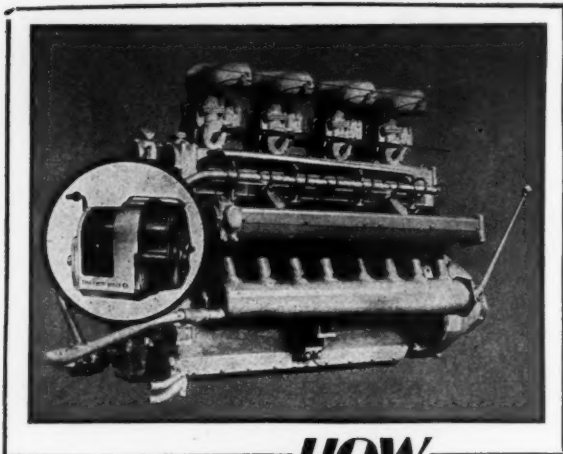
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IT WON the Duke of York Trophy race at Southampton, England, recently. It has won most of the great automobile classics. Everywhere, on land and sea, Harry A. Miller Racing Engines come home the winner so often that people often ask "How does Miller do it?"

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Each type of Magneto in this line generates more ignition energy than any others of equal size ever made. It is a sturdier, more compact, *water-proof* magneto. It gives a more powerful, more flexible, cleaner running engine. It lowers fuel consumption and lengthens engine life.

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 The full name Robert Bosch and the trademark at left appear on all Original-Bosch products—your guaranty of Original-Bosch quality as known the world over since 1887.

Preventing Trouble from Sediment

(Continued from page 146)

carburetor and clogging it. This may be accomplished in two ways; a gauze strainer in the tank or a sediment strap at the beginning of the supply pipe. Either of these will collect the larger particles of sediment and the manufactured strainer at the carburetor will further remove the small particles and water, the combination assuring clean fuel and freedom from danger of the flow of fuel to the carburetor being interrupted as long as there is fuel in the tank.

The strainer is a brass or copper wire mesh or perforated metal cone soldered to the tank end of the shut off valve or a bushing attached to the valve and is placed in position with the shut off. The mesh or perforations should be of a size that will just allow a pin head to pass through. The strainer should be approximately three inches long and of a diameter to just pass through the tank tapping. This strainer stops the larger particles which might lodge on a turn or in a sag in the supply pipe and passes the smaller particles to be removed by the carburetor strainer.

The sediment trap is formed by bushing a $\frac{3}{8}$ or $\frac{1}{2}$ inch tee to fit the tank shut off and screwing from 4 to 6 inches of pipe in the run of the tee. This pipe is capped and the cap tapped for a drain or the pipe reduced for a $\frac{1}{4}$ inch drain cock. The supply pipe to the carburetor is run from the branch. Drain the trap at least once a month. W. B. M., Newburgh, N. Y.

International Meeting Adopts American Classes

(Continued from page 40)

record trials must necessarily be competed for with silencers. The point was raised and strongly maintained that for record trials silencers were objectionable, and I finally carried my point in this connection only for the year 1928, and on condition that I would request the National Authority for U. S. A. just as the British delegate would require his own National Authority, to have them both reconsider the advisability of waiving silencers on outboard motors as an exception in connection with possibly international events, but more particularly world's record trials.

Another point that was decided upon by a strong majority is that in connection with International races and world's records, the pilot must be a member of an affiliated club. This does not imply that it should be so for National events.

World's records—Two sets of rules were proposed, one by France, the other one by Sweden.

In enacting its rules, which took more than a full day, the Committee picked out of each proposed draft what is considered most advisable. The definite French text is being revised by the secretary of the Committee, when it will be put into English by the British and American delegates in co-operation; it will then be appended to the minutes of the meeting. The following is a resume of the principal rules:

Motor boats were divided into 2 subsections, to wit:

Subsection A: Boats with propellers acting in or against the water.

Subsection B—Boats or floats moved with air propellers.

In each of the above subsections, three different types of records were decided upon:

A—Speed record for a distance of 1 nautical mile.

B—A short distance record on a course measuring 12 nautical miles, for outboard motors only.

C—A long distance record on a course measuring 24 nautical miles.

The nautical mile of 6080 feet (1852 metres) was selected for world's record as being universally known.

Records may be established during a National or International meeting.

It shall be permissible to stop either motor or boat between the laps in a speed record trial; but the accumulated time between the 6 runs must not exceed one hour, while a total time of not more than 4 hours is allowed for each mile trial.

There are three classes of records:

A—National records.

B—World's class records.

C—World's unlimited records.

The world's record was defined to be one of greatest speed, irrespective of any classification in either subsection A or B (see above).

For a boat to be entitled to beat a preceding record, its speed must be in excess of the previous record by at least one-half knot.

The President advised the Committee of the receipt of three applications for world's records:

Dr. Etchegoin, 12 litre class, speed 57.234 nautical miles per

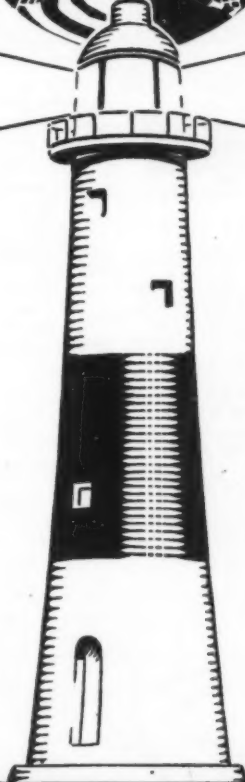
(Continued on page 156)

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Wherever waters flow and men go down to the sea, the lake or the river—Corsair Cruiser is a byword for all that is fine in marine design and construction. For the afternoon or evening trip—deck space that is ample for entertainment. On the week-end—comfortable accommodations for four. Famous naval architects and master

shipbuilders have contributed their supreme effort in presenting you with a craft to meet your every demand, answer your slightest whim—thirty feet of pleasure, enjoyment and utility—priced at \$4500—delivered in northern or southern waters ready to cruise.

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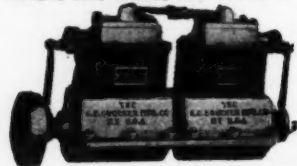

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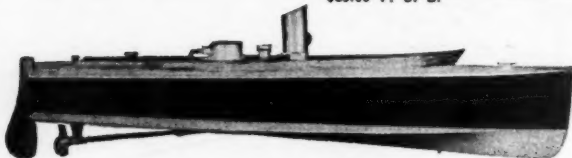
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Minnow delights the heart of any boatman. It is a fast, well-poised and trim model runabout, using no acids, flame, heat or steam for power. Equipped with our special high-speed spring motor, it runs for about five minutes at approximately three miles an hour. Construction set includes detailed blue print, shaped parts, necessary materials and motor for \$10.00 F. O. B. Price without motor, \$4.00 F. O. B. Completed model, painted with black sides, red under body, varnished deck and mahogany trim, including stand—\$12.00 F. O. B.



HIGH SPEED RACING ENGINE Type S-64

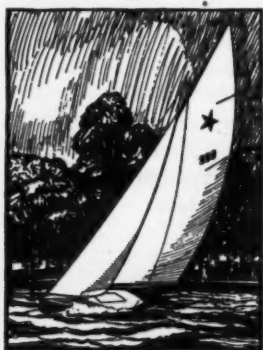
This finely developed miniature four-cylinder, high-speed, light-weight, trunk-piston type racing steam engine performs to perfection. It gives extraordinary power, and is ideal for model boats up to 60" in length. Complete construction set with blue print and full instructions, \$12.00 F. O. B. Completely machined parts, \$25.00 F. O. B.



DOLPHIN A 36 in. Power Racer

No special tools are needed for building this high-class runabout model. It is built and performs just like the big ones. Durable, strong and light in weight. The DOLPHIN construction set is complete, including frames and mahogany keel, chines, clamps, stem and stern, cut and shaped, ready for assembling. All brads, screws and glue required are also furnished, besides detailed instructions. Price complete \$10.00 F. O. B.

Catalog gives prices and descriptions of power plants for DOLPHIN



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How Kawa Was Improved

(Continued from page 19)

the original after deck. The floor of the bridge deck is 18 inches higher than originally, and 14 inch walkways were left on each side of the after cabin at the same level as the bridge deck. This makes a 9-inch step from this level to that of the after deck. The space remaining on the bridge deck is 5 feet fore and aft, and about 10 feet wide which is ample for four wicker chairs.

Raising the deck 18 inches permitted a level bridge deck, whereas it was previously necessary to have a large raised hatch covering the after end of the engine. It also made room for two 35 gallon gravity gas tanks under the bridge deck, one on either side of the engine, with plenty of room for a man to get between engine and tank on either side.

The Pullman Uppers were eliminated, leaving two unobstructed berths 3½ feet wide in the main cabin. Main cabin has full head-room and houses toilet and galley. In the after cabin two 3 foot berths were built, with a dresser between the after end and a locker for hanging clothes at the forward end of each berth. Full head-room was not possible in the after cabin without spoiling the appearance but we did get 5 foot head-room.

Note how the fore and aft balance has been maintained by the positioning of the new canopy top, which starts about 6 feet forward of the transom and runs a little more than 6 feet forward from the bulkhead of forward cabin. Additional weight is given to the appearance forward by the spray cloth, which also serves a very useful purpose. Note the high crown of after cabin, which enables us to keep the after cabin sides below the rail and weather cloths to prevent a dumpy appearance, due to short cabin house aft.

Side curtains are arranged to completely enclose sides of canopy and an extra spray cloth provided to raise the height of the forward spray cloth in sloppy weather.

The new deck is of 2 inch white pine laid in strips 1½ inches wide and finished bright. In addition to other advantages this solid deck has reduced engine noise and vibration very noticeably.

This is an advantage, as Kawa is equipped with a six cylinder Sterling Petrel engine which drives her at top speed close to 16 knots. Cruising speed at 1300 revolutions is 12 knots. It is remarkably quiet for a power plant of this size.

It was the object to overcome the objectionable features of the raised deck type with as little sacrifice of pleasing lines as possible.

You can judge for yourself to what extent this has been accomplished by comparing the pictures of Kawa before and after.

It is particularly interesting to note how the raising of weight has affected the quick roll, which was very tiring. This has slowed down very noticeably, although she still snaps back a little faster than would be ideal.

Motor Fire Boats for Portland

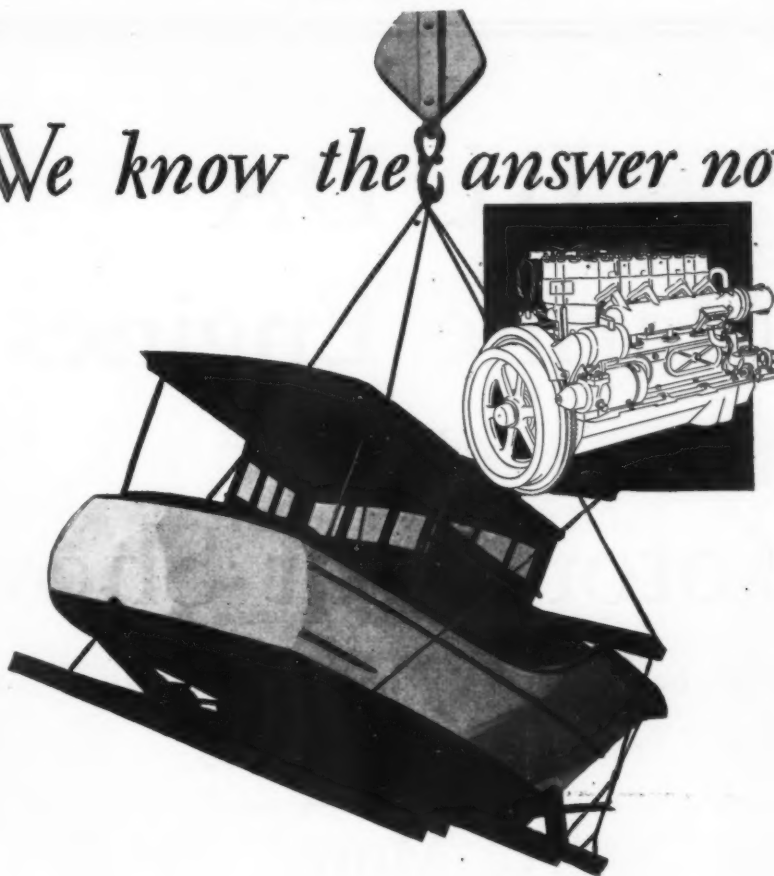
At the yards of the Baker Construction Co. of Portland, Oregon, three gas-engined fire boats embodying some very interesting features are rapidly nearing completion. Each of the three boats is 85 feet long with an extreme beam of 21 feet 6 inches and is powered with two eight cylinder 565 h.p. Sterling engines each turning a 32 inch propeller calculated to give a speed of 18 miles per hour. The main engines of these vessels are provided with shafts projecting through the flywheel end and equipped with jaw clutches permitting connection to centrifugal water pumps. Each boat has also two additional six cylinder engines for pumping only.

The water capacity is 9600 gallons at 200 pounds pressure but the arrangement of the apparatus is such that this can be altered to 72 gallons at 300 pounds pressure or 5200 gallons at 400 pounds.

There is a water curtain under the guard rail entirely around the boats and another around the wheelhouse. Midships on each boat is mounted a six inch nozzle which commands a sweeping position unobstructed. At the bow and stern are three-inch monitors. All valves are manually operated.

The screw is to consist of six men and the cost of maintenance will be much less than that of any steam fire boat because of the smaller crew required and the fact that there is no standby fuel consumption. So far as known these vessels are the largest gasoline motor fire boats ever built and their water capacity compares favorably with any marine fire fighting equipment.

We know the answer now



What will her history be?

Will serviceable years be spent as a house boat at her mooring or will her owner enjoy the thrill of cruising and exploring? The ability of her motor to cope with every emergency, to run smoothly and to give continuous uninterrupted service will decide.

If her engine is a Palmer Engine we know the answer now.

For Palmer engines are successful engines. They are free from fads of design and are built to the Palmer ideals of materials and workmanship. They have been proven for over thirty years.

That is why we say—"If her engine is a Palmer, we know the answer now."

THE PALMER LINE

YT1-1-cylinder.....	2 h.p.
PNR1-1-cylinder.....	6 h.p.
PNR2-2-cylinder.....	12 h.p.
PNR3-3-cylinder.....	18 h.p.
PNR4-4-cylinder.....	24 h.p.
ZR1-1-cylinder.....	7 h.p.
ZR2-2-cylinder.....	14 h.p.
ZR3-3-cylinder.....	21 h.p.
ZR4-4-cylinder.....	28 h.p.
F2-2-cylinder.....	18 h.p.
F3-3-cylinder.....	25 h.p.
F4-4-cylinder.....	35 h.p.
F6-6-cylinder.....	50 h.p.
NK2-2-cylinder.....	25 h.p.
NK3-3-cylinder.....	35 h.p.
NK4-4-cylinder.....	50 h.p.
NK6-6-cylinder.....	80 h.p.
VH1-4-cylinder.....	14 h.p.
VHL-4-cylinder.....	20 h.p.
Little Huskie 4-cyl.....	15 h.p.

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When Sir Hari Singh, the Maharajah of Kashmir, sent his emissaries recently to America to purchase the finest motorboat runabout that money could buy they of course selected a Dodge Watercar.

A month on the sea, twelve days on an Indian railroad, 250 miles through the Kashmir mountains by motor lorry, and the trusty and luxurious Watercar will be enjoyed by India's most illustrious potentate and his friends on the River Jhelum.

The DODGE Watercar

The Royalty of the Motorboat World

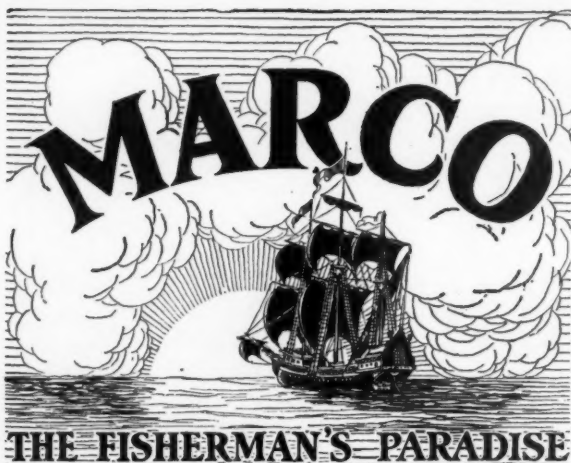
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More Light Means More Fun!

Night hours are the best hours afloat—if the boat provides plenty of light. And that means ELECTRIC light.

Matthews Marine Lighting Plants are the ones "Built for Boats"—rugged and dependable—a 14-year reputation back of them. Modernize your boat with real electric cabin lights, running lights and search-light. Two Matthews Models—"HR", 400 watts (20-20 watt lamps) "KHM", 1000 watts (50-20 watt lamps). Write for our folder about lighting for safety and luxury.

Matthews Engineering Company
617 King St., Sandusky, Ohio

Model "HR" 400 watts. Ample current for 20-20 watt lamps.

Florida Opens Season

(Continued from page 29)

double tracking of the Florida East Coast Railway, a new Miami 27 story Courthouse, and new office buildings valued at \$12,000,000, the total of these improvements being tabulated at \$308,500,000.

It is because of these that the week of January 2nd has been set aside for a fitting celebration in honor of their completion.

The landing of Columbus will be presented in pageantry. He will be received by members of the Seminole Indian tribe, whose hunting grounds remain in the Everglades, west of Florida. Rose and flower pageants will be staged and there will be fireworks displays; moon dances will be held in the evenings; bathing beauty contests and outdoor mid-winter sports will be featured at Miami Beach and Coral Gables during the week.

The International Isaac Walton League of Miami is planning a program of deep sea fishing contests by members and those visitors at Miami who follow this sport. There will be automobile trips through the orange, grapefruit and other tropical groves which grow in the Miami zone. These trips will lead over the many highways in which this section excels.

By January 2nd, Miami's great sport program which this year will excel that of any former years, will be in full swing. The many thousands who visit in Miami will be offered the opportunity to enjoy many tournaments which will be held, including golf, tennis, swimming, polo, bowling on the green, quirts, jai-alai and other contests.

Miami today offers excellent transportation facilities. For many years, transportation in this section consisted of a single track railway which was inadequate; hotels were few and could not accommodate all who wished to visit Miami during the winter months. In former years, many thousands were turned away annually. Likewise the streets of the City had become congested with automobile traffic and because of the former shortage of hotels, rates went skyward.

Since the completion of the double track of the Florida East Coast Railway and the Atlantic Coast Line Railway and the entrance into Miami of the Seaboard Air Line Railway, fast de luxe trains now make the trip from New York to Miami in 33½ hours which means only one night out.

International Meeting Adopts American Classes

(Continued from page 150)

hour. Dr. von Selve, 3 litre class, speed 15.616 nautical miles per hour. Miss H. Hentschell, in Baby Whale, Class C, outboard motor, 26.502 nautical miles per hour.

It belongs to the Bureau to ratify these records after careful consideration.

Dr. Etchegoin was awarded the John W. Ward Trophy. Sadi IV 1½ liter class, mean speed 32.426 nautical miles per hour.

He was likewise awarded the King of Italy Cup. Sadi VI 12 liter class mean of speed 56.250 nautical miles per hour.

Dr. Etchegoin also won the Rasengart Trophy with Sadi VI 12 liter class, in connection with which he broke the previous world's record for this class.

Calendar of International Races for 1928:

Germany—First half of June (Berlin).

Belgium—Not yet decided.

U. S. A.—First week of September (Detroit)

France—July 10 to 31 (Meetings of la Seine and la Baule).

England—Last week of June—Southampton—Duke of York Trophy.

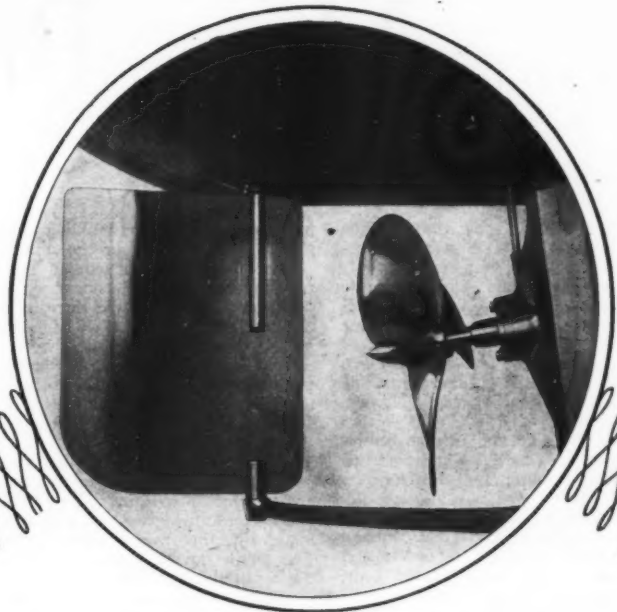
Italy—May, Lake of Garda; Sept. 25 to Oct. 5, Lake of Como.

Financial—The amount of fees payable by the U. S. A. for next year was kept at \$250 as previously.

Medals of Honor—I proposed Commodore Shantz and Commodore Gar Wood. The majority of the votes went, the first ones to Dr. Etchegoin for having broken one world's record and won three International challenges during the year; and the other ones to Victor Houet for his activity and numerous books published by him on motorboating during several years past.

The question was put by the British delegates as to whether it was the wish of the majority of other countries that the Duke of York Trophy be run in the 1½ liter class in 1929, or transferred to another class. All countries voted in favor of the 1½ liter class.

Before adjourning at 7.30 p.m., November 25, after three full days of hard work, the Committee decided that any technical question should be referred by the Secretary of the Committee to the Representative of each National Authority for the opinion of such National Authority to be forwarded by mail.



The Industry's Choice for Shafting and Underwater Parts

FOR many years America's leading boat builders have standardized on Tobin Bronze for propeller shafting and other underwater parts.

Tobin bronze offers remarkable resistance to corrosion, has great tensile strength with high yield point and is tough and uniform of structure. It is the most economical metal combining all these requisites for exposed metal parts.

Tobin bronze is furnished in sheets, rods, tubes and turned and straightened shafting. It is manufactured solely by The American Brass Company. The name Tobin Bronze is rolled in the metal.

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Exclusively An Anaconda Product

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Johnson Motor Plant

Moves to Waukegan

ANNOUNCEMENT has just been made by the Johnson Motor Company, world's leading manufacturer of outboard motors, of the removal of the plant administrative offices from South Bend, Indiana to Waukegan, Illinois, on the shores of Lake Michigan. The removal of the production and administrative units to Waukegan was completed on November 28th.

The company now occupies a fine, modern factory and office building with facilities for greatly increased production. The site on Lake Michigan forty miles north of Chicago, is ideal for experimental and testing purposes. The lake lies before the building, Waukegan Harbor at one side and behind. Shipment of products and receipt of material will be accomplished by direct connection with the Chicago Outer Belt Railway, as well as by water freight.

The necessity for greatly increased production facilities became acute during the last year because of the great demand for the company's products. To keep pace with its orders and maintain its position of leadership in the industry, the company, last spring, began construction of the new plant.

The factory section of the new Johnson building is of brick, concrete and steel construction with daylight on four sides. The present factory unit of five monitors with bay type of lighting was planned to take care of immediate demand. When additional production facilities are necessary, provision is made for two additional factory units.

In addition to the factory unit a two-story office building faces the lake and is connected with the factory. On the first floor of this building are located the production, engineering and purchasing office. On the second floor are located the executive, sales, advertising and accounting departments. A completely equipped hospital and a modern lunch room are also

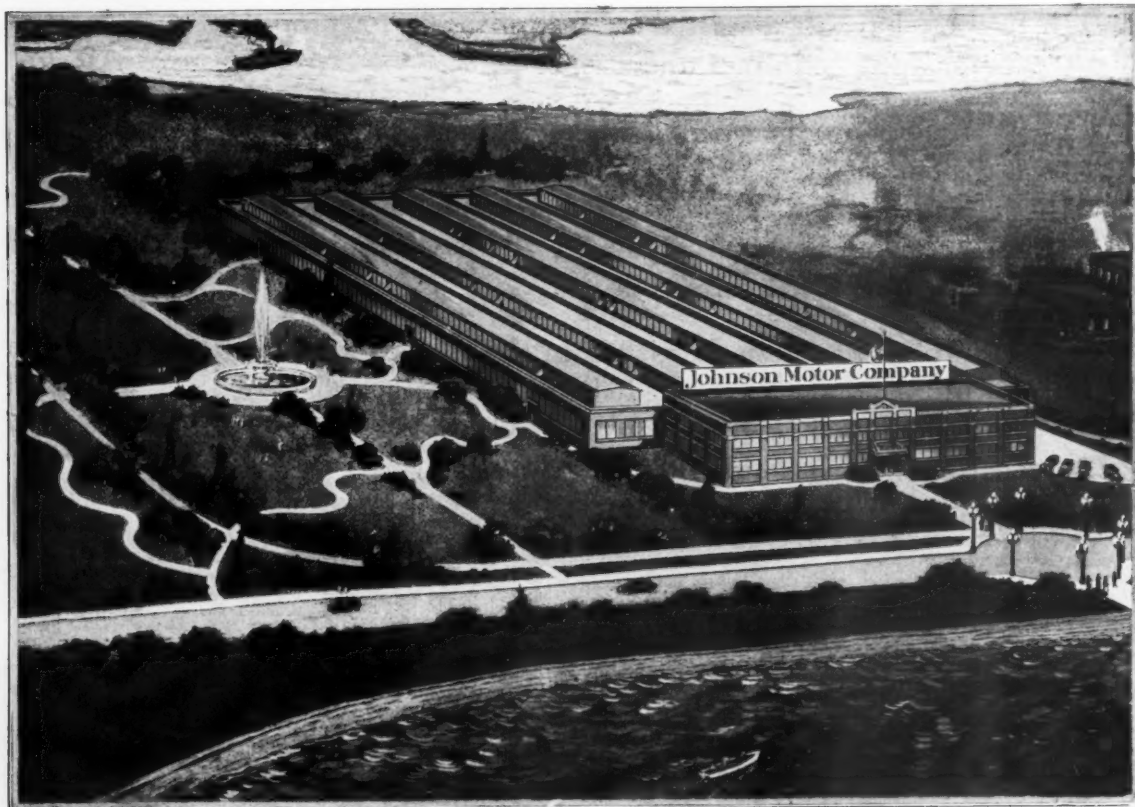
included in the office building. Maximum efficiency of operation is provided for in the office arrangements.

The engineering department has always played an important part in the Johnson business. Now with an ideal location and with new machinery and devices installed in the new plant, the engineering department will be in a position to carry out even more effectively its marked work of advancement in the boat motor field. This work of development, improvement and refinement has gone steadily forward since the organization of the company in 1921 and in that comparatively brief period the Johnson Motor Company has grown to the position of leadership in the industry.

In the summer of 1921 the company placed the first strictly portable outboard motor on the market, the Light Twin, a two-cylinder motor weighing 35 pounds, which brought into the outboard motor field new features such as full-pivot steering, automatic tilt, the reverse lock, power, dependability and stamina. The public quickly recognized these features and qualities with the result that the motors become popular.

Going a step farther, Johnson engineers in the spring of 1925 developed a single cylinder motor, practically vibrationless, with all of the features of the Twin yet weighing only 26 pounds. This was followed the next year by the Big Twin, a heavy-duty two-cylinder motor rating six horsepower but weighing only 85 pounds. The present year, 1927, saw still another model, the Standard Twin, a motor filling a place midway between the Big and Light Twins.

What the Johnson Motor Company regards as its crowning achievement in the last year was the presentation of the Aquaflyer, an outboard powered runabout which proved to be the sensation of all the boat and outdoor shows.



The new plant of the Johnson Motor Company, manufacturers of outboard engines, which is located on the Lake front at Waukegan, Ill. The former plant at South Bend was outgrown, and vastly improved facilities have been provided now

2 NEW CRAFT

One of them bids fair to
"knock your eye out" if
you commute or use the
water for travel by day.

By all means see the
other if you have just
longed for a "nice little
boat *you* could own".

At the Boat Show
NEW YORK SALES SALON

a
Cf

Spaces B2 and B3

217 WEST 57th STREET

Please mention MOTOR BOATING, 119 West 40th St., New York



AT THE NEW YORK SHOW

NEW—and embodying the characteristic refinement of every Dart—a 30-foot Runabout. . . . Visitors at the Grand Central Palace, January 20th to 28th, are invited to inspect this achievement, together with the popular Dart 26-foot Runabout and Dart 22 1-2-foot Junior.

INDIAN LAKE BOAT COMPANY : INCORPORATED

350 East High Street : Lima : Ohio

The
DART →
← **RUNABOUT**

Permanent Dart Display Rooms at


NEW YORK
Bruns Kimball & Co.
50 West 17th

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Atlantic Radio & Marine Co.
20 Brookline Ave.

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Bruns Kimball & Co.
102 So. 4th

CHICAGO
The Motor Boat Mart
1725 Diversey Blvd.

MIAMI
Atlantic Boat Yard Co.
243 S. W. 6th



COLUMBIAN

BRONZE PROPELLERS

on
*Walter Chrysler's
Frolic II*



WALTER CHRYSLER'S Frolic II, designed by Wells and built by Lawley, is equipped with a 27 x 27, Style "F" Columbian Propeller. Thus adding one more to a long list of Columbian-equipped boats owned by men who are able, through training and experience, to appreciate the finer points of propeller design.



Cap'n Allswell
says:

"Columbians sell best to the man who knows propellers."

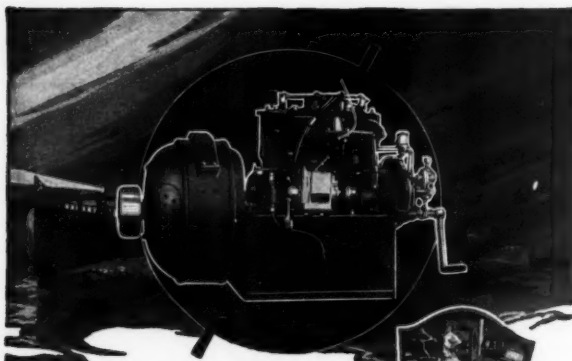
Write for "Propellers in a Nutshell"

COLUMBIAN BRONZE CORP., 208 N. Main St., Freeport, L. I., N. Y.

CUTLESS
RUBBER
BEARINGS

SKEGS
STRUTS
RUDDERS

Please mention MOTOR BOATING, 110 West 40th St., New York



City Electric Service for Your Cruiser

UNIVERSAL Marine Electric Plants are truly marine type, stow in tight quarters, are very accessible and with four-cylinder power silently deliver smooth, flickerless light. Sizes 1½ K.W. to 12½ K.W. in 32, 60, 110, 220 volts.

Typical installations include the "Wasp", Wm. Wrigley, Jr., Chicago; "Edris", Thomas H. Ince, Culver City, Cal.; "Cigarette", Gordon Hammersley, New York City; and "Samona", W. J. Hole, Los Angeles.

Write for Catalog and Prices.

UNIVERSAL MOTOR COMPANY
46 Cease St., Oshkosh, Wis.

Not connected with any other firm using the name "Universal"

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Four
Cylinder
ELECTRIC PLANTS

Marine Motors. Industrial Engines. Pumping Units

Illustrating the popular 4 K.W. Universal Marine Type Electric Plant.

GOES ANYWHERE!



You can safely take the WHISTLER through deep water, over muddy places or nose it right up on a bathing beach. There's nothing on the bottom but paint. It's propelled by air, steered by air. Rides "like flying" and is proven thoroughly reliable by two years of severe usage. A splendid craft for marshy bays, treacherous inlets, narrow rivers, uncharted lakes. Custom built at \$4,350, with 90 h.p. engine. Address

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NO experience is required to construct a seaworthy and successful boat if you use Brooks Knock-Down Boat Frames. The Brooks method of boat building is easiest for the amateur. We supply all parts shaped and machined ready to assemble. With our plans and directions you can build any one of the 55 different boats described in the Brooks book of designs, with the skill and finish of a seasoned expert. The money you save by building with the Brooks system will amaze you. Professional boat builders often follow the Brooks method because of the great difference in cost. Send twenty-five cents to-day for our book of plans and start building your boat now.

BROOKS BOAT CO., Inc., Dept. 33, SAGINAW, W. S., MICH.
Originators of the Pattern and Knock-Down Systems of Boat Building

Florida Outboards Start Season

(Continued from page 112)

some of the most desolate country in Florida.

Yacht clubs and commodores are springing up like mushrooms and yacht club buildings and officers are being refurbished and re-elected or ousted. In short all Florida is bent upon making this sport one of the 57 industries, as it were.

To date the six sanctioned races held during November and the first week in December, have given the enthusiastic, if somewhat mystified outboard fans, six afternoons of genuine thrills. There have been spills aplenty. Malcolm Pope of Winter Haven, drove his Baby Winter Haven III, a Herbst Special equipped with an eight h.p. Johnson, at a rate of 29.508 miles per hour at Palatka on Nov. 12. Five days later on his home course in Winter Haven, he shaded this record, which was established as a state mark, by doing a mile in 2:01½, a rate of 29.702 m.p.h. Bruno, of St. Petersburg, owned and driven by Ed Davis, has been grabbing off first money and ritzy little loving cups in the races against his 4 h.p. rivals.

Twelve-year-old David Leonard with his Happy Daze, Ed Davis in his Bruno, Ed Detwiler of Winter Park in his City of Homes, Cal Malone of Pinecastle in Baby Pinecastle and in the 8 h.p. class Malcolm Pope, Bill Pourtless of St. Petersburg in Miss X and Al Hodgeson also of St. Petersburg in his Florida Flyer, are fast making reputations around the circuit as daredevils of the modern outboard racing fraternity.

The above named drivers and boats probably are among the favorites in the state but there are many others who are expected to get their share of the fun before the season closes—if it does. Some of these others are Maceo Hicks of Waldo who pilots Mibaby; H. M. Frazier of Auburndale with his Miss Ariana; Henry McIlwaine of Tampa with his Baby Tampa; and Dudley Townes also of Tampa with his Wetwash.

A few of the dark horses are the Navi-Gator, formerly the Green Diamond then owned by Carl Fay of Cocoa, now being piloted by C. A. Pounds of Gainesville; Forrest E. Johnson's Baby Hi-Jacker of Miami; Me-2 of Cocoa, the Allen brothers' speedcraft, and Kenneth Merrill's fleet of Miss Jacksonvilles of that same city.

A brief summary of the races held at this writing (Dec. 7th) follows:

At Palatka, Nov. 12.—Class B event won by City of Homes with Ed Detwiler, pilot, doing the three miles at a speed of 24.324 m.p.h. Sister Pinecastle, driven by Cal Malone, and Blue Streak, driven by W. L. Sanders of Titusville, were second and third respectively. Class C event won by Baby Whale with Travis Chestnut of Jacksonville. Mibaby and Baby Winter Haven III tied for second place. (It was during this race that Pope set his state record which he himself later broke).

At Clearwater, Nov. 11.—Class B event won by Bruno, I. O. Whipple, St. Petersburg, driver; Baby Tampa, second and Baby Clearwater, third. Class C event won by Malcolm Pope (five miles) with Mibaby, second and Miss X, third.

At Winter Haven, Nov. 17.—Class B event won by Bruno of St. Petersburg at a speed of exactly 25 miles per hour with Baby Winter Haven III second and Baby Tampa, third. Class C event won by Baby Winter Haven III, Pope breaking his Palatka record by doing a mile at 29.702 m.p.h. Miss Ariana was second and Baby Whale third.

Thanksgiving Day at Tampa.—Class B won by Bruno with Spirit of Clearwater, second and Hi-Jacker, third. Class C event won by Baby Winter Haven III with Florida Flyer, second and Wet Wash, third.

Thanksgiving Day at Auburndale.—Class B won by Black Cat, owned and driven by Dave Leonard of Winter Haven with City of Homes, second and Baby Pinecastle, third. Class C event was won by Miss X of St. Petersburg with Miss Ariana, second and Mibaby, third.

Tams & King Incorporate

(Continued from page 30)

and Mr. Crouch with their combined experience in the supervision and design of new work, the new corporation of Tams & King has a well balanced organization to cover the wide variety of work which a firm in this business is called upon to handle.

Already designs for several new craft for 1928 are well under way, and several of these embody features for large speed cruisers which Tams & King have originated and developed, and which should give new impetus to the speedy commuters which are fast growing in popularity.

How engine troubles are best avoided ... and why



FAIR weather—a good boat—and an engine that will take you there and bring you back—those are the joys of motor boating. If the weather is bad or the boat at fault, the pleasures of the trip will be lessened. If the motor is stubborn the whole day will be ruined.

Most engine troubles are due to poor lubrication. You will not wreck your motor within a few miles or a few hundred miles with the use of poor oil, but with continued use sooner or later you will run into difficulties.

Why not insure a good trip every time you go out by using good oils of the right grade for your engine?

The correct grade of Mobiloil will give you the most efficient lubrication you can buy. And you will find it the cheapest in the long run.

Ask any motor boat engine builder. 57 of the leading builders attach permanent Mobiloil recommendations to their engines. Wherever lubrication is discussed in engineering circles, you will find that the Vacuum Oil Company is looked upon as the leader in this most important field.

A nearby Mobiloil dealer has the grade of Mobiloil recommended for your engine, whether you own a "kicker" or a 60-foot cruiser. Why not see him now and arrange for regular supplies?

MAKE THIS CHART YOUR GUIDE

THE correct grades of Gargoyle Mobiloil for lubrication of prominent motorboat engines are specified below. The grades of Gargoyle Mobiloil are indicated by the letters shown below. "Arc" means Gargoyle Mobiloil Arctic.

The winter recommendations specified on this Chart should be followed when freezing temperatures (below 32° F.) are encountered, unless the engine is enclosed in a heated cabin or otherwise warmed before starting. If your engine is not listed here, see the complete Mobiloil Chart at your dealer's, or write to the Vacuum Oil Company, 61 Broadway, New York City.

NAMES OF MOTOR BOAT ENGINES	1927 Engines		1928 Engines		1929 Engines		1934 Engines	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Continental-Van Blerck.....	BB	A	BB	A	Arc	A	Arc	A
Fay & Bowen.....	A	Arc	A	Arc	A	Arc	A	Arc
Hall Scott, LM4, LM6, 118, 121, 122, 123, 124	B	B	B	B	B	B	B	B
" (All other models)	B	B	B	B	B	B	B	B
Kermath, 1 to 20 H.P., incl.	A	Arc	A	Arc	A	Arc	A	Arc
Mod. 50-70 and 100	BB	A	BB	A	BB	A	BB	A
Mod. 9 and 150.	B	A	B	A	B	A	B	A
" (All other models)	A	A	A	A	A	A	A	A
Lathrop, Model 100.....	BB	A	BB	A	A	A	A	A
" (All other models)	A	A	A	A	A	A	A	A
Niagara, D Series.....	B	Arc	B	Arc	A	Arc	B	Arc
Special.....	A	Arc	A	Arc	A	Arc	A	Arc
" (All other models)	A	Arc	A	Arc	A	Arc	A	Arc
Palmer, L. H., Little Huskie, 2 Cycle.....	A	A	A	A	A	A	A	A
" Heavy Duty.....	B	B	B	B	B	B	B	B
" (All other models)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Red Wing, Thorobred.....	BB	A	BB	A	A	A	A	A
Red Top, BB6—High Speed	A	Arc	A	Arc	A	Arc	A	Arc
Red Wing, Thorobred.....	A	Arc	A	Arc	A	Arc	A	Arc
" (All other models)	A	Arc	A	Arc	A	Arc	A	Arc
Scripps F6 Jr., Gold Cup	B	A	B	A	B	A	B	A
Model G6.....	A	Arc	A	Arc	A	Arc	A	Arc
Mod. F6 and F6.....	BB	A	BB	A	BB	A	BB	A
" (All other models)	A	Arc	A	Arc	A	Arc	A	Arc
Speedway, Model K.....	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mod. M, Z, N, H.	A	A	A	A	A	A	A	A
Model MK.....	B	A	B	A	B	A	B	A
Model MP.....	BB	A	BB	A	BB	A	BB	A
" (All other models)	B	A	B	A	B	A	B	A
Sterling, Neptune.....	A	Arc	A	Arc	A	Arc	A	Arc
" (All other models)	B	A	B	A	B	A	B	A
Universal Flexifont.....	A	Arc	A	Arc	A	Arc	A	Arc
Super-Four Model GLR.....	BB	A	BB	A	BB	A	BB	A
Super-Four (All other models)	A	Arc	A	Arc	A	Arc	A	Arc

HOW TO BUY

For outboard motors—we suggest the 1-quart or 1-gallon cans of Mobiloil.

For small inboard motor craft—the 1-gallon or 5-gallon cans of Mobiloil.

For cruisers—the 10-gallon drum, 30-gallon drum, or 55-gallon drum of Mobiloil, all with convenient leak-proof faucets.

GARGOYLE

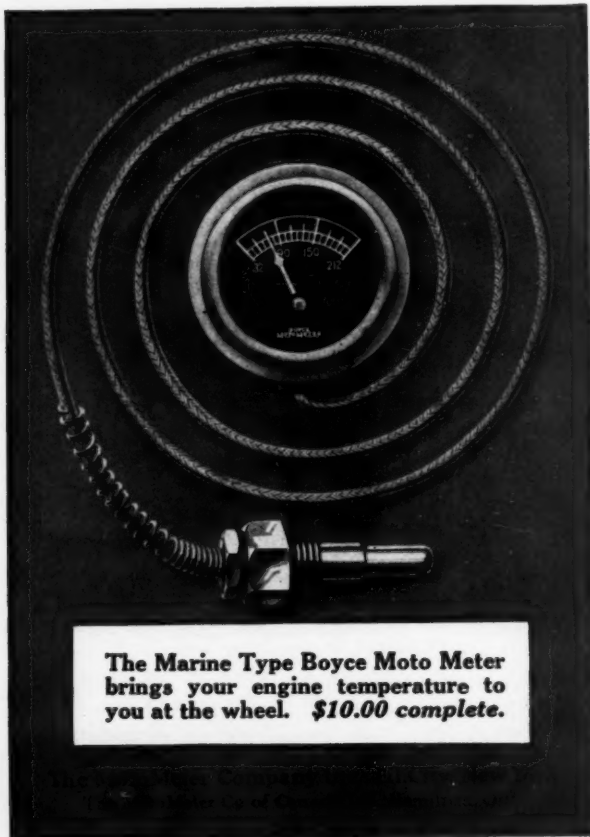
Mobiloil
Make the chart your guide

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MAIN BRANCHES: New York, Chicago, Philadelphia, Boston, Buffalo, Detroit, Pittsburgh, Minneapolis, St. Louis, Kansas City, Dallas.

Other branches and distributing warehouses throughout the country

Please mention MoTOR Boating, 119 West 40th St., New York



The Marine Type Boyce Moto Meter brings your engine temperature to you at the wheel. \$10.00 complete.

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Air-Drive Power Plant

Pioneer airplane or air drive boat manufacturers and boat owners, will find their every requirement fully met with these engines.

We are in a position to furnish the best air-drive marine power plant on the market, with assurance of complete satisfaction following installation on proper hulls.

Speed Ratings 35-50 m.p.h.

Air-Cooled Power Plants 7-120 h.p.

Water-Cooled Power Plants 120-180-300-400 h.p.

Write, stating your requirements, rough sketch and specifications of your hull if possible. We will furnish detailed information and prices.

BROWNBAC MOTOR LABORATORIES, Inc.
 420 Lexington Avenue New York, N. Y.

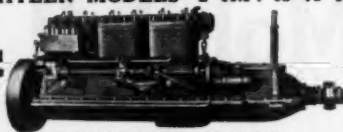
REGAL MARINE ENGINES

Thrive on Hard Work

Leaders for 26 Years

EIGHTEEN MODELS—2 H.P. to 75 H.P.

Low Cost
 Economical
 Dependable
 Long Life



Write
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 New
 Catalog

Model KF—75 H.P., 800 R.P.M.
 6 Cylinders. Bore, 5½". Stroke, 7". Seven Bearing Crankshaft.
 Ask About REGALITE, a ¼ K.W. Air Cooled Electric Lighting
 Plant for Boats

REGAL GASOLINE ENGINE CO.
 74-82 West Pearl Street Coldwater, Mich.

Yard and Shop

(Continued from page 150)

Crosses Lake Michigan Alone in Outboard

Henry F. Trinke, fireman, of Racine, Wisconsin, recently accomplished a feat which it is believed has never before been achieved. Having a taste for adventure and a love for the water, Mr. Trinke conceived the idea of crossing Lake Michigan at its widest point in a small Elto powered open boat.

W. H. Rohan of the Racine Boat Corporation designed and built a boat especially for the trip and the model was so successful that it has been made a part of the regular stock line of this Company. It is known as the Koastgard Model. For power Mr. Trinke chose the Super Elto Service Twin. He carried twenty gallons of gasoline. An electric pump was installed in the boat so that the motor tank could be filled while under way.

Henry F. Trinke, in Raboco III, left Racine Harbor at 8:25 in the evening. He rode through the night guided by the stars and a compass. During the early hours of the morning Raboco III encountered a stiff nor'easter and was buffeted about for the balance of the trip in a heavy sea.

He brought his boat to a safe landing at the Holland, Michigan Coast Guard station at 8:41 a.m. after covering the 80 miles in twelve hours and sixteen minutes, in spite of winds and rolling seas.

This is the first time that this section of Lake Michigan has been crossed by an outboard motor powered boat unescorted. The fact that Mr. Trinke, the Racine boat and the Super Elto came through unscathed is a splendid evidence of the seaworthiness of this type of boat, a tribute to the reliability of the power plant chosen for the trip and an unquestionable credit to Mr. Trinke.

After traveling aboard a steamer from Holland to Milwaukee, Mr. Trinke again launched Raboco III and proceeded to his home port, Racine, where he was received and welcomed by city and Fire Department officials.

The Rochester 55-Footer

The popular Rochester 55-foot cruiser has been redesigned for 1928. The improvements are extensive, and incorporate such changes as an increase in beam to 13 feet 4 inches, larger deck house with visor, pronounced flare forward, and additional deck space aft.

The interior has been proportionately remodeled and expanded, giving more ample accommodations throughout. The cabins accommodate a party of six with quarters for a crew of two, a roomy bath, and two toilet rooms. Nothing has been spared in the way of comforts, conveniences and finish to make this cruiser a real de luxe home afloat at a very moderate cost.

The power plant of this new model consists of a twin-screw medium-duty motor installation, which drives her easily at a speed of 20 m.p.h. The Rochester Boat Works, Inc., is concentrating on this size as one of their leaders in standardized construction for next season.

Outboards Used by Red Cross

In a letter received by the Evinrude Motor Co., of Milwaukee, Wisconsin, from J. H. Davis, of the Fairchild Aerial Surveys, who was head of the Rescue and Transportation Section of the Red Cross Flood Relief work at Houma, Louisiana, Mr. Davis states:

"It will probably interest you to know that the outboard motor rendered a very great service in this flood disaster, in fact, as head of the rescue and transportation I believe the outboard motor contributed more to the saving of life and property than any other single unit of equipment."

All orders for Evinrudes received by the Evinrude Motor Company from the flooded district, were given right-of-way over all other orders. Every possible effort was made to get Evinrudes into the flood zone as quickly as possible. This, no doubt, made many a sportsman wait for delivery but it was all for a good cause.

"It is an ill wind that blows nobody good," as the old saying goes, and although everyone deplores the unfortunate condition brought about by the Mississippi Flood, it surely gave outboard motors a chance to demonstrate and prove their practical usefulness under the most unfavorable conditions. The ease with which they could be run and handled, and the wonderful power of the little outboards, surprised and impressed a great many who for the first time were brought in close touch with them. The rapid development which has been going on in the outboard motor industry, can best be appreciated by those who are familiar with the crude vibrating type of outboard motor in use a few years ago.

(Continued on page 166)

Richardson

"28"

Repeating The Good News of a Year Ago

WHEN the first Richardson Cruisabout made its appearance on New Year's day a year ago, it was immediately acclaimed as the greatest forward step ever taken in the building of standardized cruisers.

But the outstanding success of a year ago, will be more than repeated with the coming of the new MASTER 28-foot Cruisabout—a boat that sets up a new standard of luxury, smartness, comfort, appointment, power, seaworthiness and enduring value at the remarkably low price of \$3585.

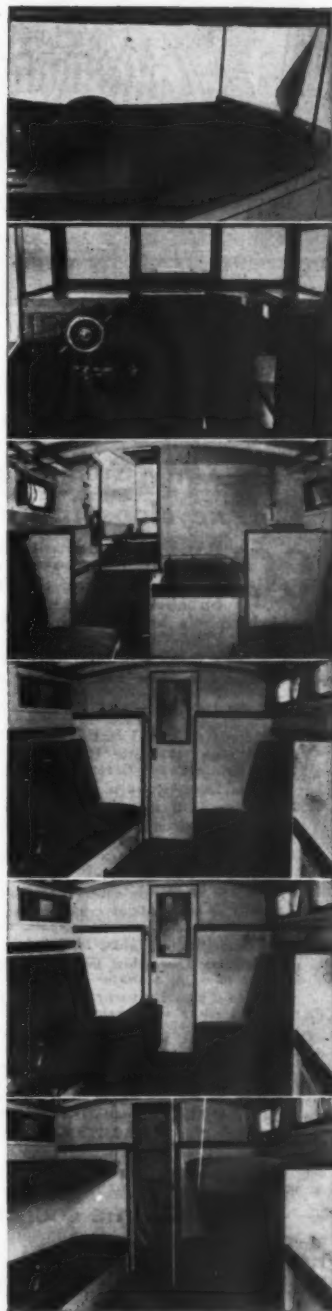
**Eldridge-McInnis Designed
Richardson Built
Powered by the
GRAY "6-40" Engine**

Be sure you know about this sparkling craft the first thing you do this year. The stem-to-stern description of the Master Cruisabout will reveal more refinements, more thoughtful details for comfortable cruising, than you ever expected to find in any boat under \$5,000.

Don't wait for summer breezes to think about your boat for 1928—write for the full picture-story of the Master Cruisabout today and you will be sure to have your boat in the water when the first balmy days come along.

Dealers should act promptly to obtain the Richardson franchise while some open territory is still available.

RICHARDSON BOAT COMPANY
Barge Canal Terminal
374 Sweeney St., No. Tonawanda, N. Y.



Cruisabout

Please mention MOTOR BOATING, 119 West 40th St., New York

Our GIFT to You



The New Yachtsman's Guide The Only Complete Yachting Encyclopedia Published

500 PAGES crowded with just the sort of practical information every motor-boat man wants to know. A copy of this invaluable volume should be aboard every boat and in the library of every yachtsman's home—on hand for immediate reference at all times. The following list gives you merely a partial glimpse of the wealth of material this book contains. Read it—then send for your **FREE** copy at once!

- All about engines—installation, ignition, vaporization and operation.
- Hundreds of helpful hints on outfitting and overhauling.
- More than 100 Motor Boatmen's Charts for the entire Atlantic Coast, Great Lakes and Canada.
- Marine Laws—Rules of the Road at Sea.
- What to do if the motor stops unexpectedly.
- Times of high and low water and direction and velocity of tides in all ports.
- Latitude and Longitude Tables, giving locations of over 1,000 points.
- All kinds of marine codes, flags, etc.
- Details of hundreds of cruise routes, description of ports and channels, marine signals, codes, flags, etc.
- Characteristics of lights, buoys, fog signals, etc.
- Numbering Law—How to obtain numbers for your boat.
- What to do in a storm—to prevent collisions.
- How to organize a yacht club—Constitutions and By-Laws and many other helpful features.

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"THE YACHTSMAN'S GUIDE" sells regularly for a good round sum, which we are willing to forget if you take advantage of this special offer of MoToR BoatinG for one year at \$3.50, or two years at \$6.00, with "THE YACHTSMAN'S GUIDE" as a gift. You would pay \$4.75 for a year's single copies of MoToR BoatinG, anyway. So the book costs you nothing at all, and you save money on your subscription besides.

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Name

Address

City State

Postage outside of U. S. and Canada \$1.00 extra a year.

Yard and Shop

(Continued from page 164)

Users' Tax on Foreign Boats Going Up

A delegation of American Shipbuilders and members of the National Association of Engine and Boat Manufacturers, appeared before the Ways and Means Committee of the House of Representatives at Washington, where the subject of tax revision was being considered. It was shown that the present tax rate on the use of foreign built pleasure craft is not sufficient to act as a deterrent against the purchase of foreign built motor vessels. It was shown that numerous orders for large boats had been executed in foreign yards, and many additional vessels are still under construction. By sailing these boats into this country under their own power, they evade the duty of thirty percent which would be levied if they were shipped directly into American ports. The Ways and Means Committee after considering the matter has advocated an increase of 500 percent in the present rate of Users' Tax on foreign built boats. This will bring the rate up to \$10.00 per foot on boats under 50 feet, \$20.00 per foot on boats from 50 to 100 feet, and \$40.00 per foot on boats over 100 feet in length, per year. This tax will be quite heavy, and will certainly make it much more expensive to operate a foreign built vessel.

New York Distributor

Sutter Brothers, well known marine dealers and distributors of a number of first class marine engines have been appointed distributors for New York for the Stearns Motor Manufacturing Co., and have arranged to carry a display of these engines in their show rooms in New York.

A Revolutionary Clutch Development

From the Far West there now comes a Clutch development known as the American Reversible Clutch and its reversing mechanism is as novel as it is sturdy.

It is built by the American Mfg. Co. of Los Angeles, Cal., an old established firm which has specialized in Clutch building for 14 years. This roller contact American Clutch has been used in quantities for over two years, and was primarily designed for the Puget Sound Fishing fleets as well as large tugboats handling heavy tows in fast water, most of these boats being powered with slow speed diesel or gas engines of large power.

Every American Reversible Clutch will deliver 100% reversing speed and up to 97% actual h.p. in reverse, and will do this for as long and as often as may be required, without excessive heating or other bad effects.

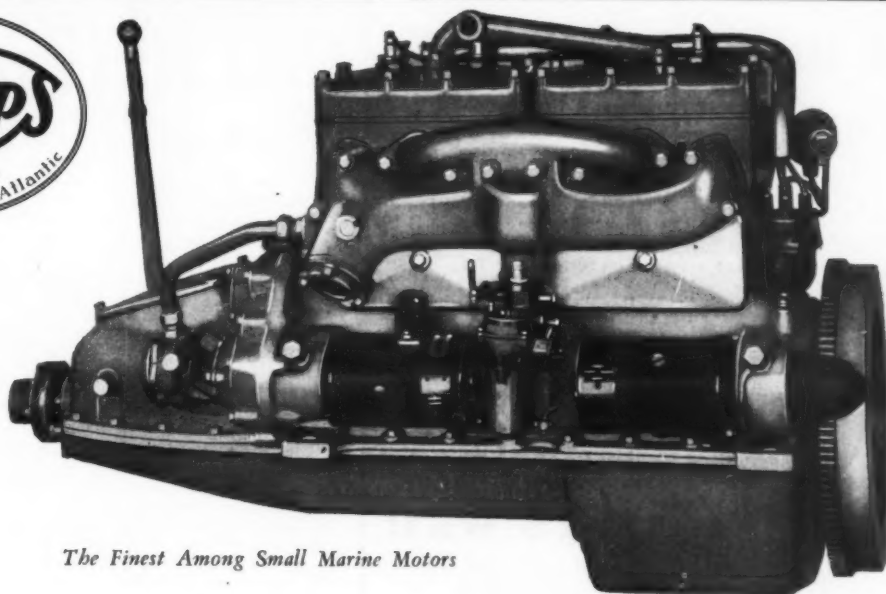
Very unusual reversing mechanism as well as the sturdy multiple disc clutch for driving ahead and, instead of making use of the ordinary spur or bevel gears, the American Clutch uses a type of gears which are designated as Roller Gears.

Both the driving and driven members have upon their inside faces accurately spaced and correctly shaped conical rollers, heat treated. The ends of these conical rollers have large journal bearings, closely fitted in hardened alloy steel bushings, which in turn are pressed into two flanges of their holding members. These conical rollers are thus permitted to easily roll in and out of mesh when coming into contact with the specially shaped and generated teeth of the interposing members or spider gears, without chattering.

The many applications of this now famous clutch include, not only tug boats, fishing boat, yachts and motor boats, but mills, mines, excavators, oil fields, rail cars, logging machinery, pumping plants etc., etc.

The American Reversible Clutch is manufactured in nine different sizes from 5 to 500 h.p. and for any required r.p.m. and it is especially adapted to either heavy duty slow speed Diesel or Gas engines including horsepower up to 500 h.p. or to high speed gas engines. This opens up a vast market in the realm of marine propulsion, not only for small boats but also for larger vessels which heretofore have been severely handicapped by lack of a successful marine reversing clutch properly applicable for heavy duty, slow turning engines.

The Reversible Clutch Corporation of Los Angeles, California, whose main offices are at 314 East 3rd Street, Los Angeles, has recently taken over the exclusive sales and distribution of the entire output of the American Plant, and will immediately inaugurate a worldwide distribution campaign. They will exhibit American Clutch in actual operation at the New York Motor Boat Show this month so that Easterners may see first hand this most interesting Western product.



The Finest Among Small Marine Motors

What is Scripps Offering for 1928?

SCRIPPS has always set the pace in the development of high quality marine engines. When the first model was presented to the boating public in 1906, it was pledged to a policy of the highest possible excellence in motor building through a program of constant refinement and improvement.

There are no yearly models designed solely for sales stimulus. New models appearing from time to time have been additions to the line to widen and broaden the range of SCRIPPS service to the boating industry.

Exhibited at the National Motor Boat Show will again appear the successful and popular D-2, F-4, F-6, Junior Gold Cup Model and the Model G-6 150 H.P., also a special cruiser type G-6; all successfully

proven in the workday laboratory of hard service in the far corners of the world as well as at home—great motors all of them, made even better through refinement and improvement in equipment.

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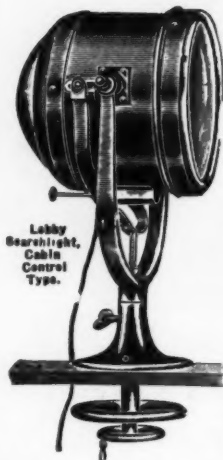
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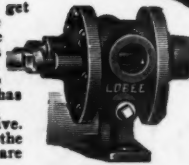
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Yard and Shop

(Continued from page 164)

A Surprise in Boats

By E. Weston Farmer

For several years now I have made a very deep study of fast hydroplane runabouts and speed boats in general. In fact, the study has become a hobby with me which I have translated into innumerable scientific experiments with countless types of hulls and many combination of hull lines, engine installations and other factors which enter into the elusive matter of speed on the water.

A short time ago, one of my correspondents brought to my attention a new method of step ventilation in conjunction with an improved method of handling a boat with a detachable motor at fast speeds which was then in the process of being patented.

I investigated this new idea and realized that a new era in outboard motoring was at hand.

At last the opportunity I had looked for to capitalize my experience in the designing and building of fast hydroplane principle in small boats was at hand. A new and amply financed company has been formed to be known as SPEED CRAFT, Inc., whose New York office will be at 85 Chambers Street. I shall act as the general manager and devote all of my time to keep our small boats one step in advance of the outboard motor which has increased in efficiency so remarkably during the last year or two.

All of the objections of the present outboard from noise, vibration, danger from lack of control, etc., have all been entirely overcome or greatly modified.

At the Motor Boat Show we will introduce a brand new type of outboard motor boat which I believe will upset all previous conceptions of this class of small craft. Until the Show opens I am not at liberty to reveal the nature of this boat in its full details. It employs, in its design, several brand new principles of outboard motor boat construction which are now in the process of being patented and which, through the results obtained in the hands of owners will warrant a production in hitherto undreamed-of quantities.

To all intents and purposes this new outboard motor boat, the Speed-Craft, is more like the standard type of high class motor boat runabouts and less like the present abbreviated row boats used for outboarding than any boat hitherto produced for use with a detachable motor. When outboard motors were first introduced they were regarded as a substitute for oars. Now their use has expanded into the true motor boat field. Most of the progress made, however, has been in the motors. I believe the time has come when radical improvements must be made in the boats themselves.

The Speed-Craft will be built in three distinct models, one a five passenger runabout with speeds up to 35 real miles an hour employing the new higher classes of motors; one a remarkably light, low-priced and extremely capable 11 foot yacht tender or general utility boat and the third an out and out racing boat, which I believe will shatter some of the existing speed records. This latter craft will follow airplane practice in design.

It is predicted that the outboard motors for the coming season will create speeds in excess of 40 miles an hour. This will bring a real element of danger into the fast growing sport of outboarding if the boats in which these higher powered engines are used are not very carefully and scientifically designed. I can mention, concerning the Speed-Craft, that it will be a step hydroplane, that the driver can face forward at all times while steering and adjusting his motor, and that its design and sturdiness will allow it to go anywhere in any weather at least as well as any boat twice its size.

In designing these boats, I have ironed out the problem of step ventilation which is so almighty important for smooth running in a boat of the hydroplane type. I have built around the best bottom I can design, top sides which make a delightful hull out of the boat, as well as providing a great improvement in the way of bulk and dryness above water.

The Speed-Craft is the result of ideas gathered from the enormous correspondence I have had with outboard fans from all over the country. The development of recent years in the runabout field and the throwing open of the Gold Cup Races to hydroplanes again is a pretty thorough testimonial to the capabilities of the hydroplanes form. The new Speed-Craft to be seen in the Show will all be in the highest type of yacht finish, although they will sell for surprisingly low prices. They will be located in Block P in the Grand Central Palace, right alongside of the display of the Johnson Motor Company. There I shall be glad to meet any of the host of people with whom I have corresponded. They will be interested to see how some of the ideas we have discussed have been worked out in actual practice after exhaustive tests on the water.

WHAT BOAT IS COMING IN THIS SPACE ?



Something Revolutionary!
to be Revealed at the Motor Boat Show

**YOU WILL BE ABLE TO
LOCATE IT EASILY BY THE CROWDS AROUND IT.**

Here is the real surprise of the Show—something that will astonish all owners and prospective owners of outboards, family runabouts, yacht tenders or racers.

Created by scientific, experienced engineers and architects but so radically new in its principles of design that it will set the entire outboard motor boat world by the ears the minute the doors of the show are opened.

Already endorsed by some of the greatest experts whose names are by-words of knowledge and conservatism, this boat means the end of old ideas of outboard Motor Boating, the establishing of new world's records, the adoption of outboarding by people hitherto only satisfied with more costly boats. It heralds an entirely new era in American small craft.

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All the above and more at the price of the ordinary classes.

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A. S. O.

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Tell your newsdealer today to reserve a copy of the Show Number (February issue) for you. It is a De Luxe issue with many special features. It gives you detailed specifications of standardized boats and engines for 1928, together with the greatest array of cruisers, runabouts, power plants, engine accessories, boat furnishings and supplies, outboard motors, and outboard motor boats ever illustrated and described between two covers. Seventy-Five Cents a copy.



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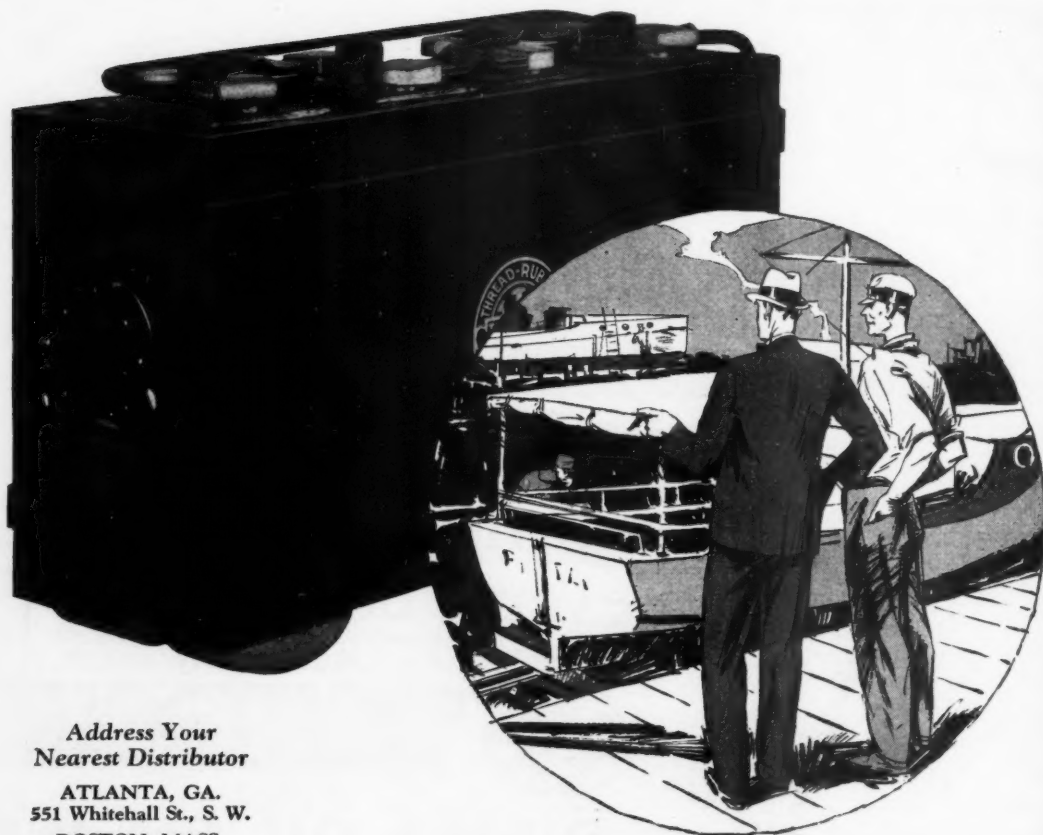
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